STR-D265

SERVICE MANUAL

AEP Model

SPECIFICATIONS

Amplifier section

Power output	(DIN at 1 kHz) 50 + 50 W / 4 ohms
Frequency response	PHONO: RIAA equalization curve ±0.5 dB CD, TAPE/MD, VIDEO: 10 Hz - 50 kHz ±1 dB

Inputs

	Sensitivity	Impedance	S/N (weighting network, input level)
PHONO (MM)	2.5 mV	50 kilohms	74 dB 72 dB* (A, 2.5 mV)
CD	300 mV	50 kilohms	82 dB 82 dB* (A, 250 mV)
TAPE/ MD, TV/ LD, VIDEO	200 mV		

* '78 IHF

Outputs	REC OUT VIDEO (AUDIO) OUT: Voltage 250 mV, Impedance 10 kilohms PHONES: Accepts low and high impedance headphones
Muting	– 20 dB
BASS BOOST	+10 dB at 70 Hz
TONE	±8 dB at 100 Hz and 10 kHz

FM tuner section

Tuning range	87.5 - 108.0 MHz
Aerial terminals	75 ohms, unbalanced
Sensitivity	Mono: 18.3 dBf, 2.2 µV / 75 ohms Stereo: 38.3 dBf, 22.5 µV / 75 ohms
Usable sensitivity	11.2 dBf, 1 µV / 75 ohms (IHF)
S/N	Mono: 76 dB Stereo: 70 dB
Harmonic distortion at 1 kHz	Mono: 0.3 % Stereo: 0.5 %
Separation	45 dB at 1 kHz
Frequency response	30 Hz - 15 kHz $^{+0.5}_{-2}$ dB
Selectivity	60 dB at 400 kHz

AM tuner section

Tuning range	531 - 1602 kHz
Aerial	Loop aerial

— Continued on next page —

MICROFILM

FM STEREO FM-AM RECEIVER

SONY®

Usable sensitivity	50 dB/m (at 999 kHz)
S/N	54 dB (at 50 mV/m)
Harmonic distortion	0.5 % (50 mV/m, 400 kHz)
Selectivity	35 dB

General

System	Tuner section: PLL quartz-locked digital synthesizer system Preamplifier section: Low-noise NF type equalizer Power amplifier section: Pure-complimentary SEPP
Power requirements	220-230 V AC, 50/60 Hz
Power consumption	120 W
AC outlets	1 switched, total 100 W Max
Dimensions	430 x 135 x 295 mm
Mass (Approx.)	5.2 kg
Supplied accessories	FM wire aerial (1) AM loop aerial (1) Remote controller (remote) (1) Size AA (R6) batteries (2)

Design and specifications are subject to change without notice.

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SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SERVICE NOTE

PROTECT MODE

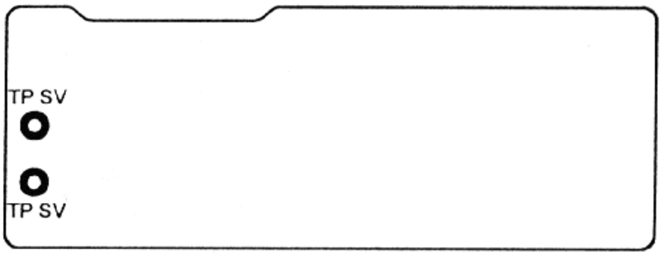
"PROTECT" will be displayed on the FL display when the amplifier is faulty or when the connectors between boards have disconnected, etc.
In the case of faulty connection, connect all the connectors of the unit again, and turn on the power. The protection will be canceled.

- **How to avoid the "PROTECT" mode disconnecting VOL BOARD**

Short-circuit between two of TP SV on the VOL MAIN BOARD, and turn on the power.
In this case, the circuit of the MAIN BOARD does not operate, but that of the DISPLAY BOARD operates.
Disconnect the connected read line afterwards.

TEST POINT LOCATION :

[VOL MAIN BOARD]
— CONDUCTOR SIDE —



TEST MODE

FL CHECK MODE

1. Turn off the power supply.
2. While pressing preset buttons [6], [7] and [8], turn on the power.
3. All the FL displays light up (Fig. 1.), after one second some light up several times, and "END" will be displayed.
4. Turn off the power.

NOTE : The preset memory will be erased if the FL CHECK MODE is performed. Therefore, note down the memory contents beforehand and set the preset memory again as before after completely this mode.

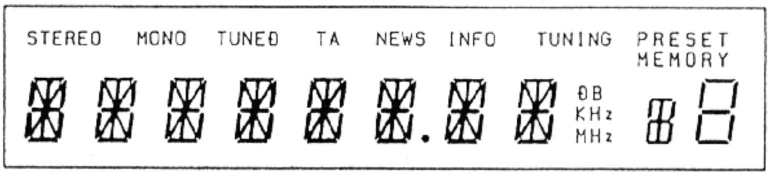
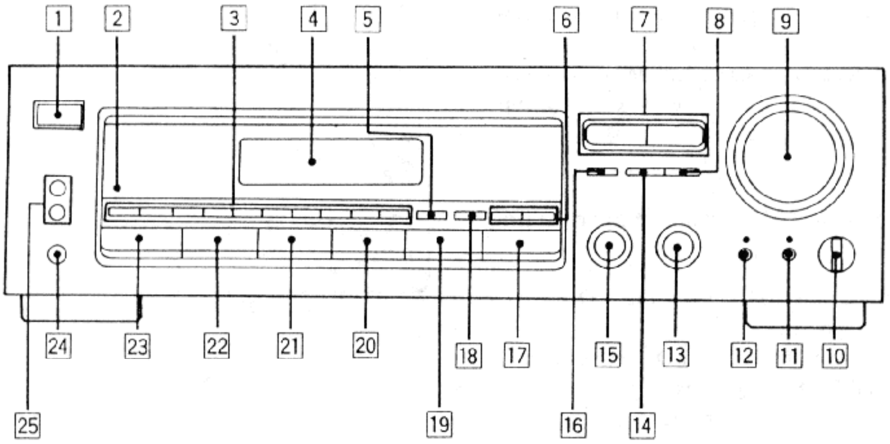


Fig. 1. When All FL Displays are Lit

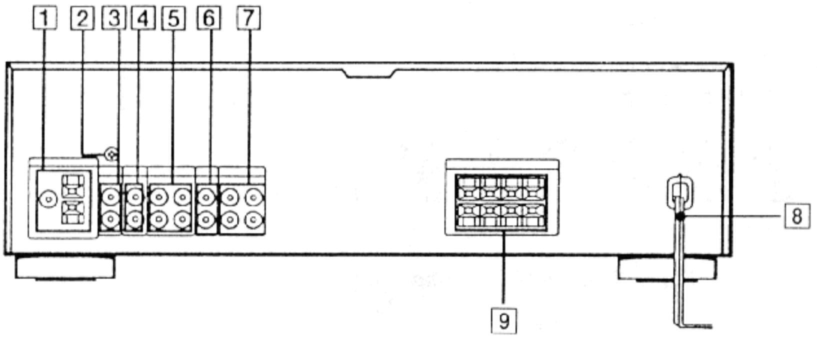
SECTION 1
GENERAL

Front Panel



1 POWER switch
2 Remote sensor
3 Numeric buttons
4 Display window
5 DIRECT button
6 PRESET TUNING +/– buttons
7 TUNING +/– buttons
8 FM MODE button
9 VOLUME control
10 BALANCE control
11 BASS BOOST button
12 MUTING –20dB button
13 TREBLE control
14 BAND button
15 BASS control
16 MEMORY button
17 PHONO button
18 SHIFT button
19 TUNER button
20 CD button
21 TAPE/MD button
22 TV/LD button
23 VIDEO button
24 PHONES jack
25 SPEAKERS A/B buttons

Rear Panel



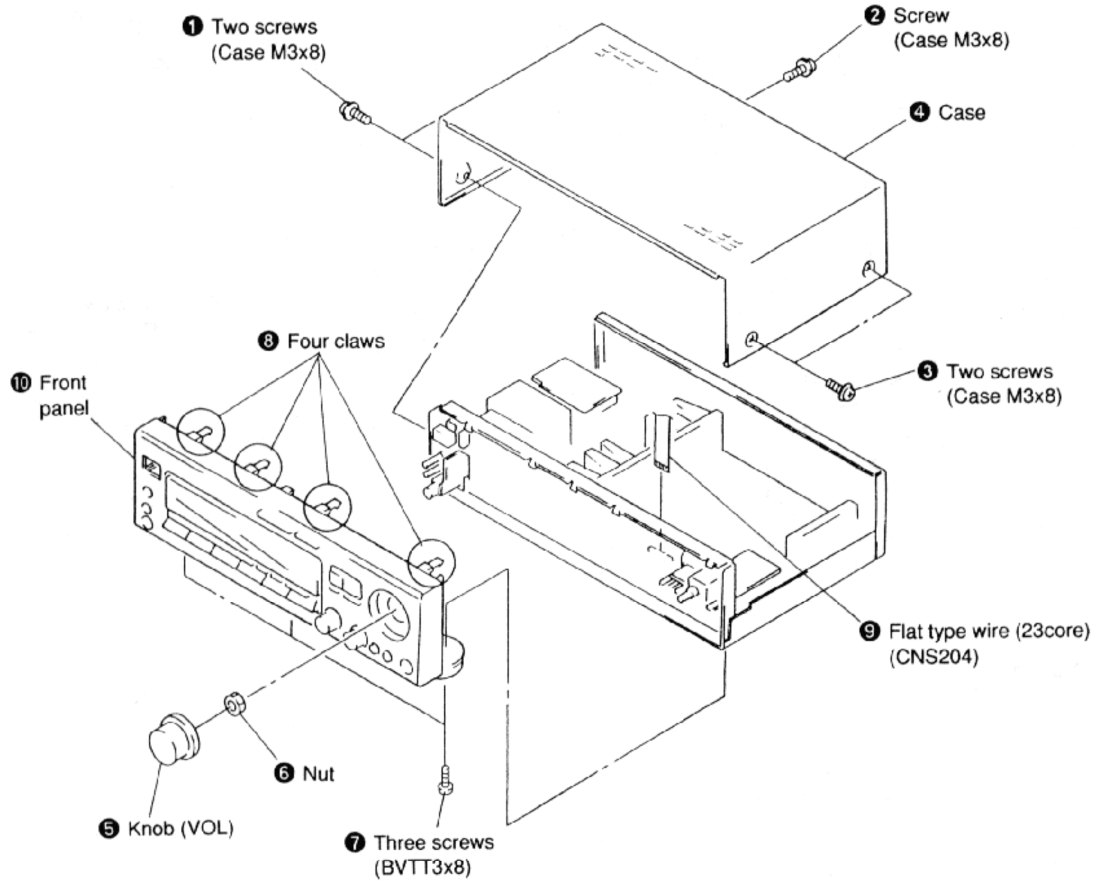
1 ANTENNA (AM/FM)
2 ⏚ earth terminal
3 PHONO
4 CD
5 TAPE/MD
6 TV/LD
7 VIDEO
8 Mains lead
9 FRONT SPEAKERS (A/B)

SECTION 2

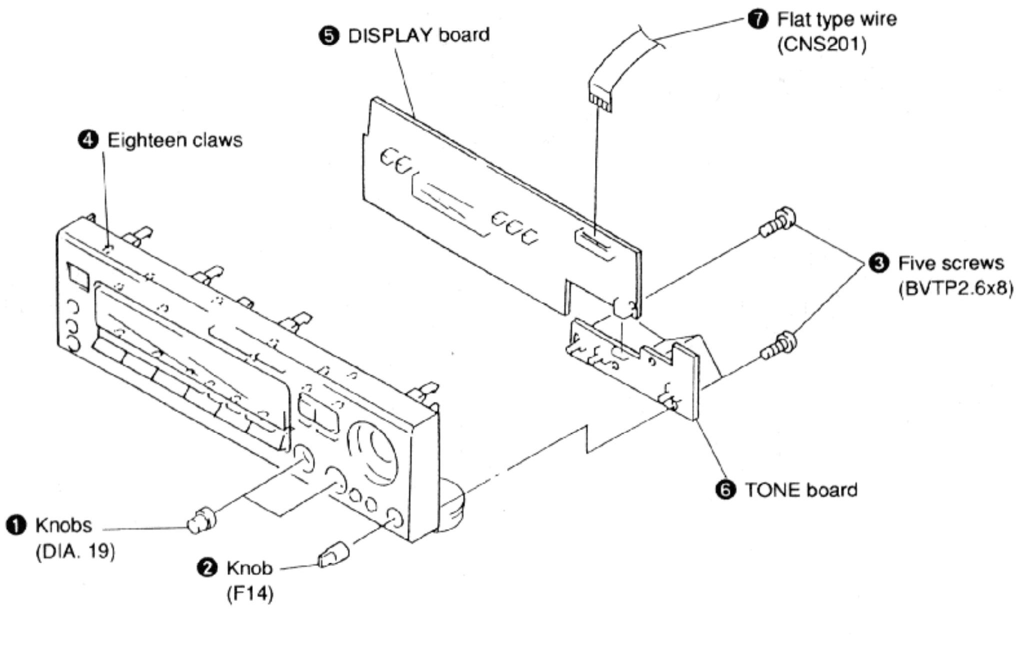
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

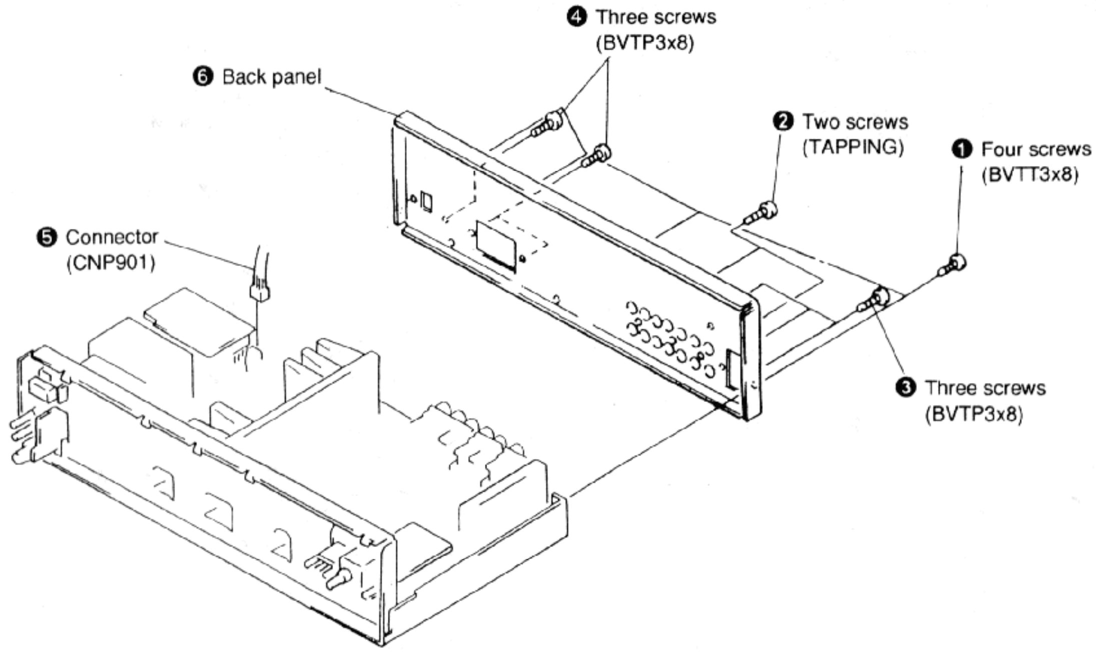
2-1. CASE AND FRONT PANEL


❶ Two screws
(Case M3x8)
❷ Screw
(Case M3x8)
❹ Case
❸ Two screws
(Case M3x8)
❽ Four claws
❿ Front
panel
❾ Flat type wire (23core)
(CNS204)
❻ Nut
❺ Knob (VOL)
❼ Three screws
(BVTT3x8)

2-2. DISPLAY AND TONE BOARD

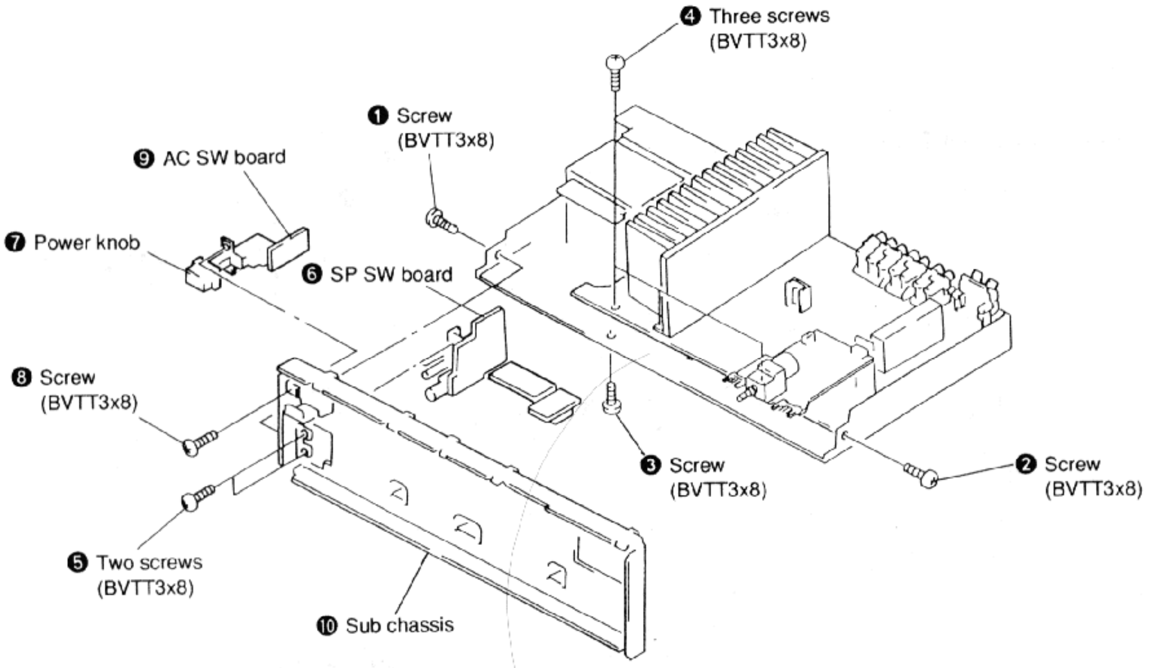

❺ DISPLAY board
❼ Flat type wire
(CNS201)
❹ Eighteen claws
❸ Five screws
(BVTP2.6x8)
❻ TONE board
❶ Knobs
(DIA. 19)
❷ Knob
(F14)

2-3. BACK PANEL



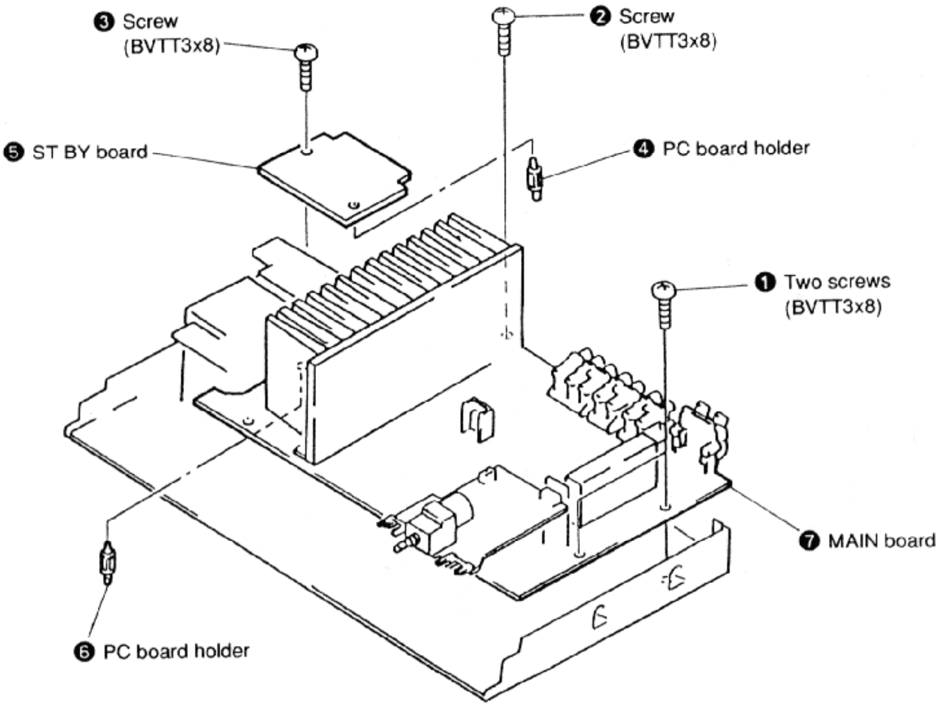
❹ Three screws
(BVTP3x8)
❻ Back panel
❷ Two screws
(TAPPING)
❶ Four screws
(BVTT3x8)
❺ Connector
(CNP901)
❸ Three screws
(BVTP3x8)

2-4. SP SW BOARD

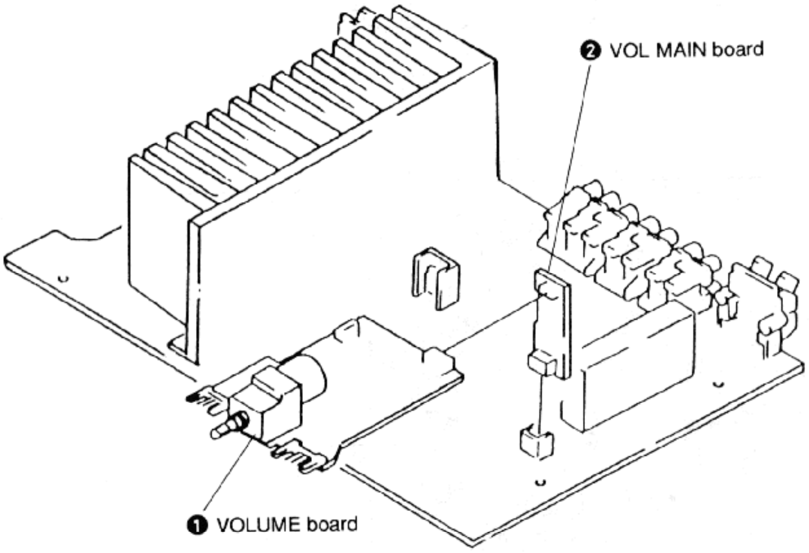


❹ Three screws
(BVTT3x8)
❶ Screw
(BVTT3x8)
❾ AC SW board
❼ Power knob
❻ SP SW board
❽ Screw
(BVTT3x8)
❸ Screw
(BVTT3x8)
❷ Screw
(BVTT3x8)
❺ Two screws
(BVTT3x8)
❿ Sub chassis

2-5. MAIN BOARD


❸ Screw
(BVTT3x8)
❷ Screw
(BVTT3x8)
❺ ST BY board
❹ PC board holder
❶ Two screws
(BVTT3x8)
❼ MAIN board
❻ PC board holder

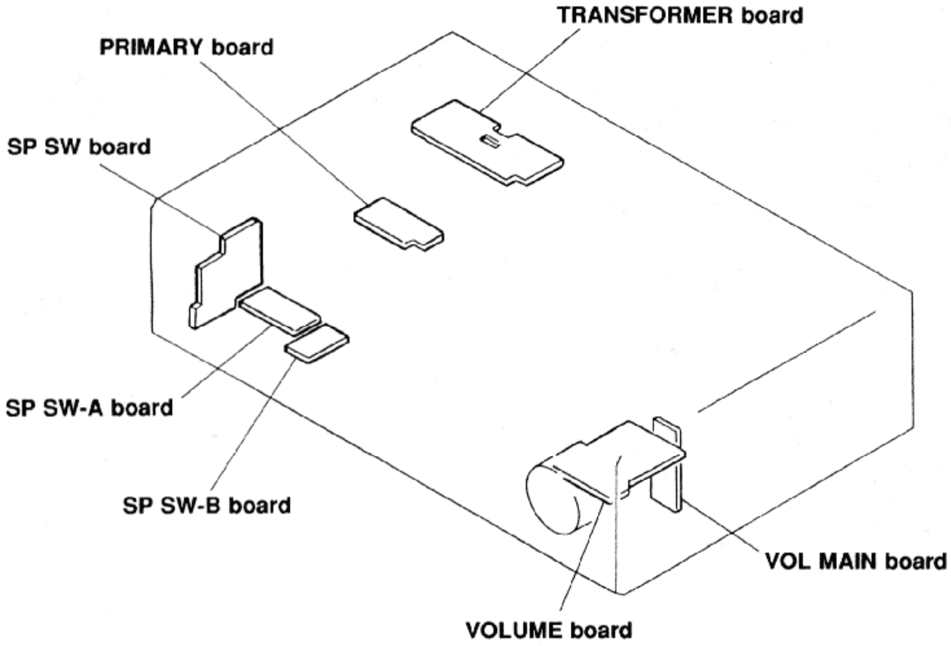
2-6. VOLME AND VOL MAIN BOARD

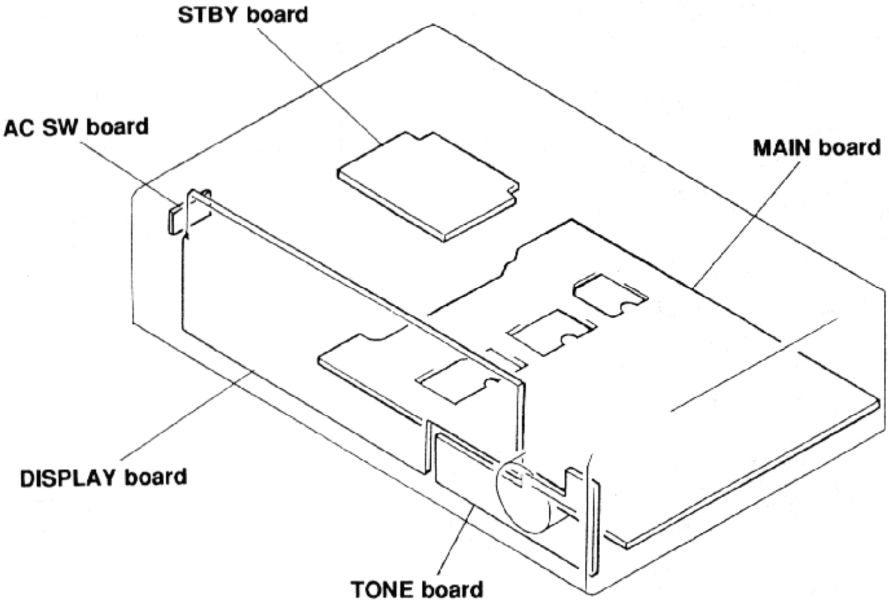

❷ VOL MAIN board
❶ VOLUME board

SECTION 3

DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION


TRANSFORMER board
PRIMARY board
SP SW board
SP SW-A board
SP SW-B board
VOL MAIN board
VOLUME board


STBY board
AC SW board
MAIN board
DISPLAY board
TONE board

3-2. IC

- IC2

Pin
1
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3
4
5
6
7
8
9
1
1
1
1
1
1
1
1
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4

3-2. IC PIN FUNCTION

- **IC201 μPD78044GF-126-3B9**

Pin No.	Pin Name	I/O	Function
1	DIG 7	O	Digit 7
2	DIG 6	O	Digit 6
3	DIG 5	O	Digit 5
4	DIG 4	O	Digit 4
5	DIG 3	O	Digit 3
6	DIG 2	O	Digit 2
7	DIG 1	O	Digit 1
8	+5V	–	Vdd
9	$\overline{\text{S. CLK}}$	O	Serial clock (normal high)
10	$\overline{\text{S. DATA}}$	O	Serial data
11	$\overline{\text{PLL. DATA}}$	I	PLL data in
12	S. CE (LC7288)	O	Serial CE (7822, 72130)
13	$\overline{\text{S. CE (LV1010)}}$	O	Serial CE (LV1010)
14	DIODE 1	I	Diode 1
15	DIODE 2	I	GND
16	BRIDGE	O	Bridgeable (not used open)
17	$\overline{\text{RESET}}$	I	Reset
18	$\overline{\text{AUTO-STOP}}$	I	Auto stop in
19	$\overline{\text{STEREO-IN}}$	I	Stereo in
20	AVSS	–	GND
21	SP-RY	O	Speaker relay
22	SURR-RY	O	Surround relay (not used open)
23	POWER-RY	O	Power relay
24	VOL. DOWN	O	Volume down
25	VOL. UP	O	Volume up
26	$\overline{\text{PROTECT-IN}}$	I	Protector in
27	SIGNAL	I	Signal meter
28	A/D IN	I	A/D converter analog in
29	AVDD	–	A/D converter power supply terminal (+5V)
30	AV. REF	–	A/D converter reference voltage (+5V)
31	$\overline{\text{S. LATCH}}$	–	GND
32			Open
33	VSS	–	GND
34	X1	–	System clock (4.19 MHz)
35	X2	–	System clock (4.19 MHz)
36	VOL LED	O	Volume LED
37	$\overline{\text{SIMULATED}}$	O	Simulated LED (not used open)
38	$\overline{\text{DOLBY}}$	O	Dolby (not used open)
39	HALL	O	Hall (not used open)
40	TUNER MUTE	O	Tuner mute

Pin
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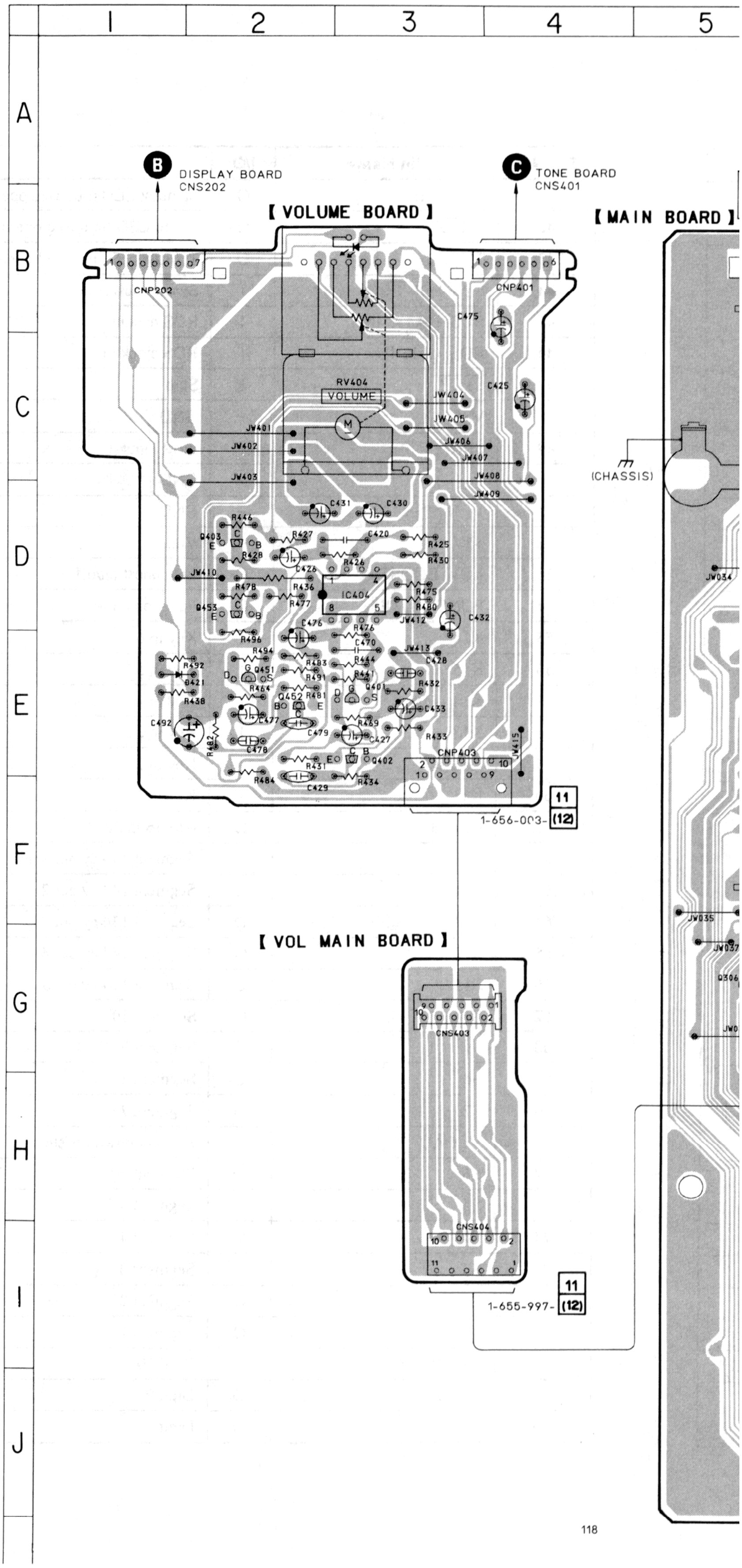
Pin No.	Pin Name	I/O	Function
41	STANDBY	O	Standby LED (not used open)
42	$\overline{\text{VIDEO}}$	O	Video LED (not used open)
43	$\overline{\text{TV/LD}}$	O	TV/LD LED (not used open)
44	$\overline{\text{SYS. POWER}}$	I	System power in
45	RDS. DATA. IN	I	RDS data in
46	RDS. CLK. IN	I	RDS clock in
47	$\overline{\text{STOP}}$	I	Stop
48	VSS	–	GND
49	$\overline{\text{SIRCS}}$	I	Sircs input
50		–	GND
51		–	GND
52	+5V	–	Vdd
53	LOW BOOST	O	Low boost on/off
54	FUNC MUTE	O	Function mute
55	K16	I	Key in 6
56	K15	I	Key in 5
57	K14	I	Key in 4
58	K13	I	Key in 3
59	K12	I	Key in 2
60	K11	I	Key in 1
61	–20 dB	O	–20 dB mute
62	S15	O	Segment 15/key out 1
63	S14	O	Segment 14/key out 2
64	S13	O	Segment 13/key out 3
65	S12	O	Segment 12/key out 4
66	S11	O	Segment 11/key out 5
67	S10	O	Segment 10
68	S9	O	Segment 9
69	S8	O	Segment 8
70	S7	O	Segment 7
71	VLOAD	–	FIP pull down resistor
72	S6	O	Segment 6
73	S5	O	Segment 5
74	S4	O	Segment 4
75	S3	O	Segment 3
76	S2	O	Segment 2
77	S1	O	Segment 1
78	DIG 10	O	Digit 10
79	DIG 9	O	Digit 9
80	DIG 8	O	Digit 8

3-3. PRINTED WIRING BOARD — MAIN SECTION —

- **See page 8 for Circuit Boards Location.**

- **Semiconductor Location**

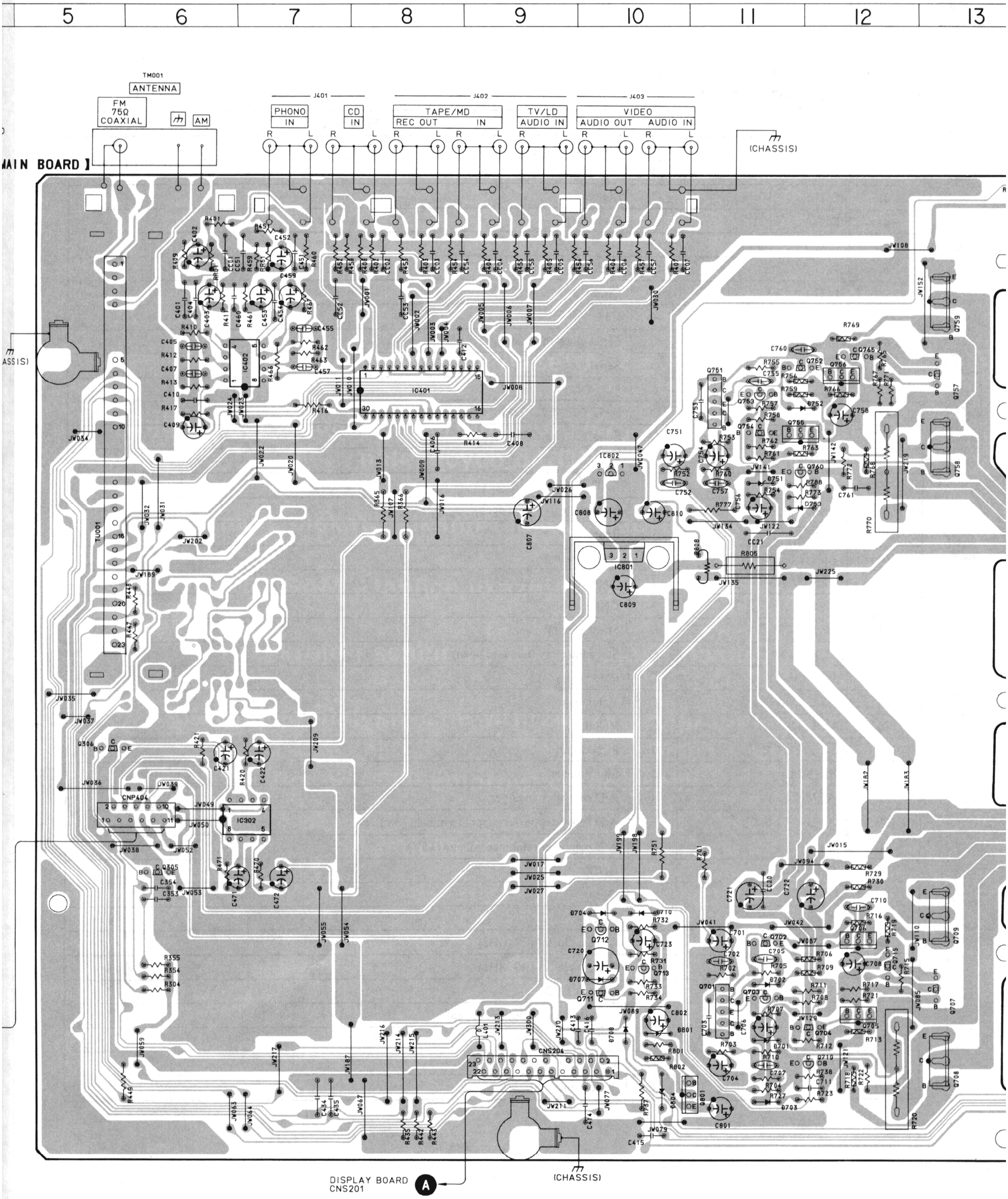
Ref. No.	Location
D421	E-1
D701	J-11
D702	I-11
D703	J-11
D704	H-10
D706	J-16
D707	I-10
D708	I-10
D710	H-10
D751	E-11
D752	D-11
D753	E-11
D801	I-10
D802	F-16
D804	J-10
D810	C-17
D811	C-17
D812	C-16
D813	C-16
D814	C-16
D815	C-16
IC302	H-7
IC401	D-8
IC402	D-7
IC404	D-3
IC801	E-10
IC802	D-10
IC950	C-14
Q305	H-6
Q306	G-5
Q401	E-3
Q402	E-3
Q403	D-2
Q451	E-2
Q452	E-2
Q453	D-2
Q701	I-11
Q702	I-11
Q703	I-11
Q704	I-12
Q705	I-12
Q706	I-12
Q707	I-13
Q708	J-13
Q709	H-13
Q710	J-12
Q711	I-10
Q712	I-10
Q713	I-10
Q714	J-16
Q715	I-12
Q751	D-11
Q752	D-11
Q753	D-11
Q754	D-11
Q755	D-11
Q756	D-12
Q757	D-13
Q758	D-13
Q759	C-13
Q760	D-11
Q765	C-12
Q801	J-11
Q951	C-14



1
2
3
4
5
A
B
C
D
E
F
G
H
I
J
B DISPLAY BOARD CNS202
C TONE BOARD CNS401
【VOLUME BOARD】
【MAIN BOARD】
CNP202
CNP401
RV404 VOLUME
M
(CHASSIS)
IC404
CNP403
1-656-003-
11
(12)
【VOL MAIN BOARD】
CNS403
CNS404
1-655-997-
11
(12)
JW034
JW035
Q306
118

Note:

- o—— : parts extracted from the component side.
- ▨ : Pattern on the side which is seen.


5
6
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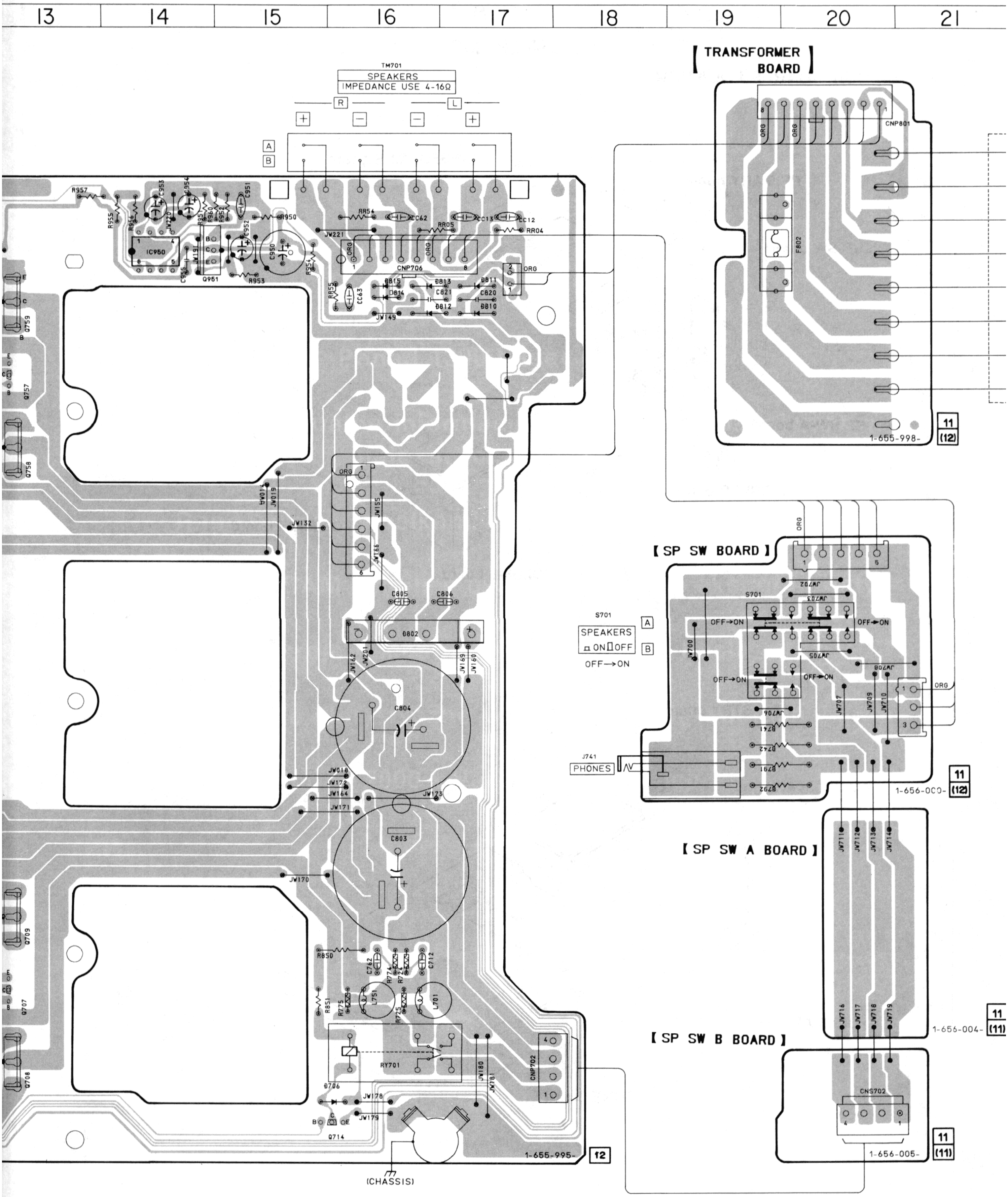
TM001
ANTENNA
FM
75Ω
COAXIAL
AM
J401
J402
J403
PHONO
IN
CD
IN
TAPE/MD
REC OUT
IN
TV/LD
AUDIO IN
VIDEO
AUDIO OUT
AUDIO IN
R
L
(CHASSIS)
AIN BOARD]
ASSIS)
IC401
IC402
IC302
IC801
IC802
CNP404
CNS204
TU001
Q306
Q305
Q751
Q752
Q753
Q754
Q755
Q756
Q757
Q758
Q759
Q760
Q701
Q702
Q703
Q704
Q705
Q706
Q707
Q708
Q709
Q710
Q711
Q712
Q713
Q715
Q801
C807
C808
C809
C810
C801
C802
R805
R770
R720
JW225
JW135
JW108
JW034
JW035
JW036
DISPLAY BOARD
CNS201
A
(CHASSIS)


13
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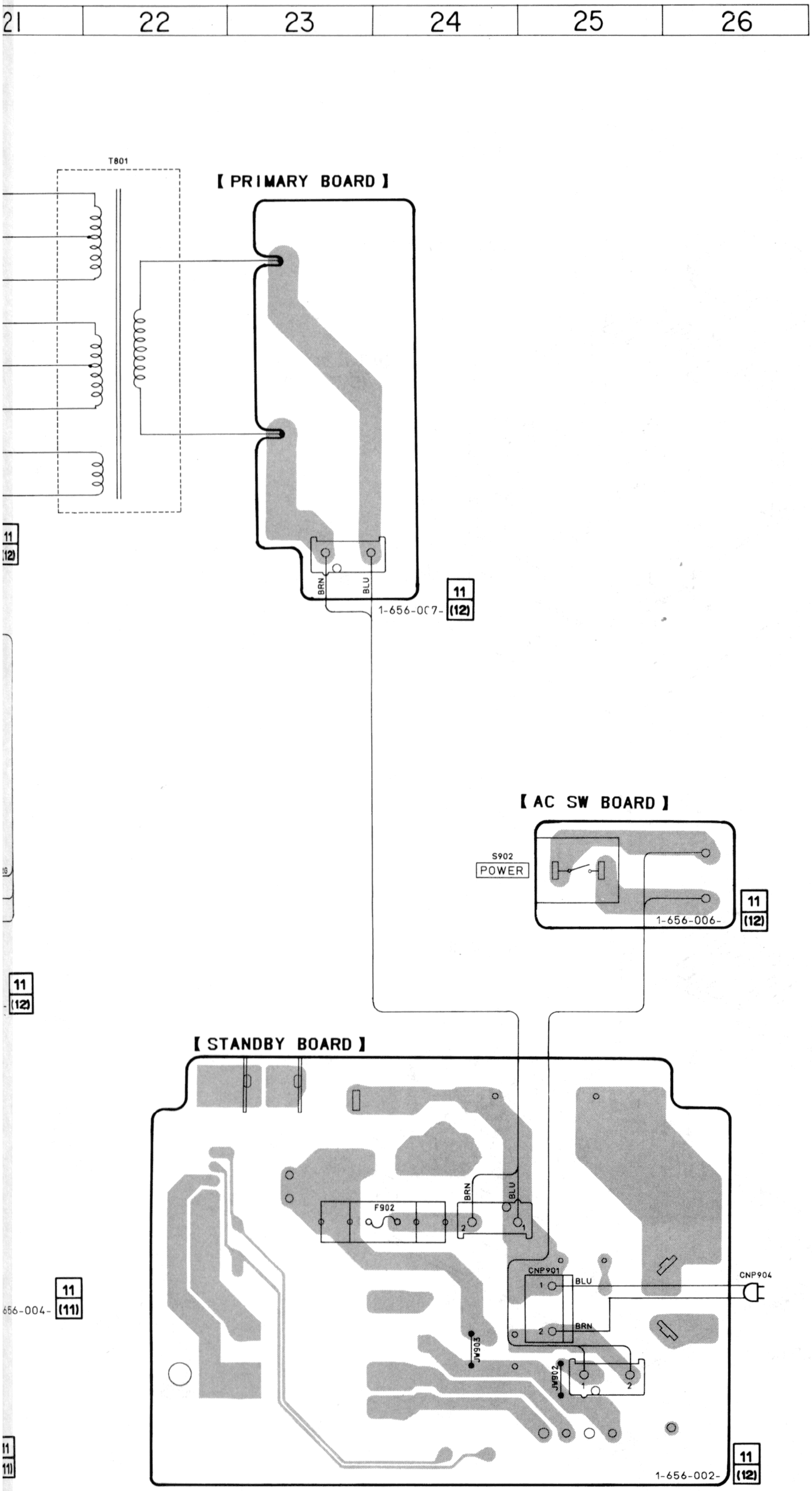
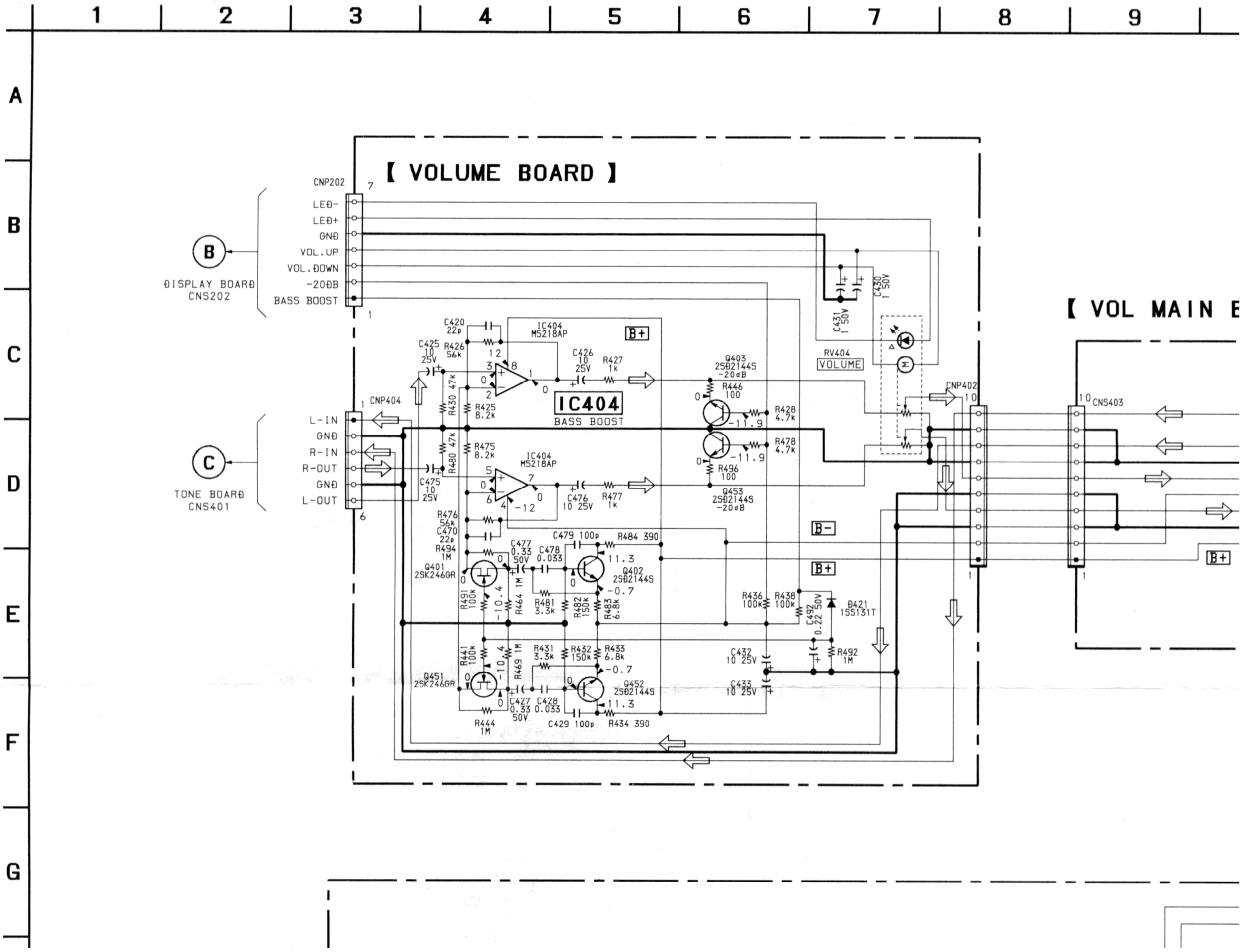
TM701
SPEAKERS
IMPEDANCE USE 4-16Ω
R
L
A
B
[TRANSFORMER BOARD]
CNP801
F802
ORG
11
(12)
1-655-998-
R957
R955
R956
C953
C954
JW220
C951
R951
R960
R952
R950
C952
IC950
JW191
C950
C955
Q951
R953
R954
RR54
CC62
RR05
CC13
CC12
RR04
JW221
CNP706
R855
CC63
D815
D814
D813
C821
D812
D811
C820
D810
JW149
Q759
Q757
Q758
JW017
JW019
JW132
JW155
JW166
C805
C806
D802
JW162
JW201
JW169
JW160
C804
JW018
JW172
JW164
JW173
JW171
C803
JW170
Q709
Q707
Q708
R850
C762
R774
R724
C712
R851
R775
L751
R725
L701
RY701
D706
JW178
JW179
Q714
JW180
JW181
CNP702
(CHASSIS)
1-655-995-
12
[SP SW BOARD]
JW702
JW703
S701
OFF→ON
JW700
JW705
JW708
JW704
JW707
JW709
JW710
R741
R742
R791
R792
J741
PHONES
SPEAKERS
ON OFF
11
(12)
1-656-000-
[SP SW A BOARD]
JW711
JW712
JW713
JW714
JW716
JW717
JW718
JW719
11
(11)
1-656-004-
[SP SW B BOARD]
CNS702
1-656-005-


21
22
23
24
25
26
T801
【PRIMARY BOARD】
BRN
BLU
1-656-007-
11
(12)
【AC SW BOARD】
S902
POWER
1-656-006-
11
(12)
【STANDBY BOARD】
F902
BRN
BLU
2
1
CNP901
1
BLU
2
BRN
CNP904
JW903
JW902
1
2
1-656-002-
11
(12)
656-004-
11
(11)
11
(12)
11
(12)
11
(11)

3-4. SCHEMATIC DIAGRAM — MAIN SECTION —

• See page 19 for IC Block Diagrams.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A
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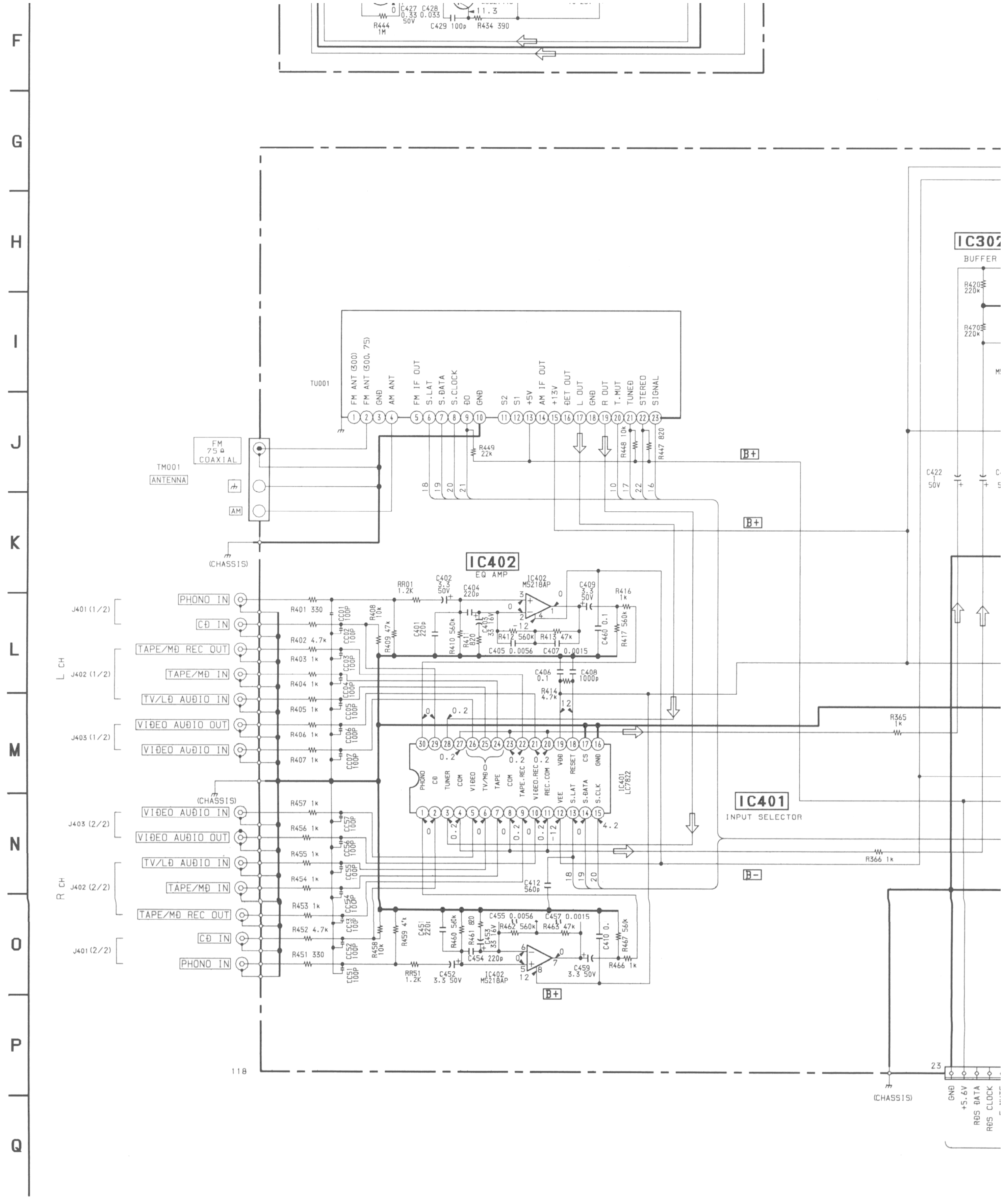
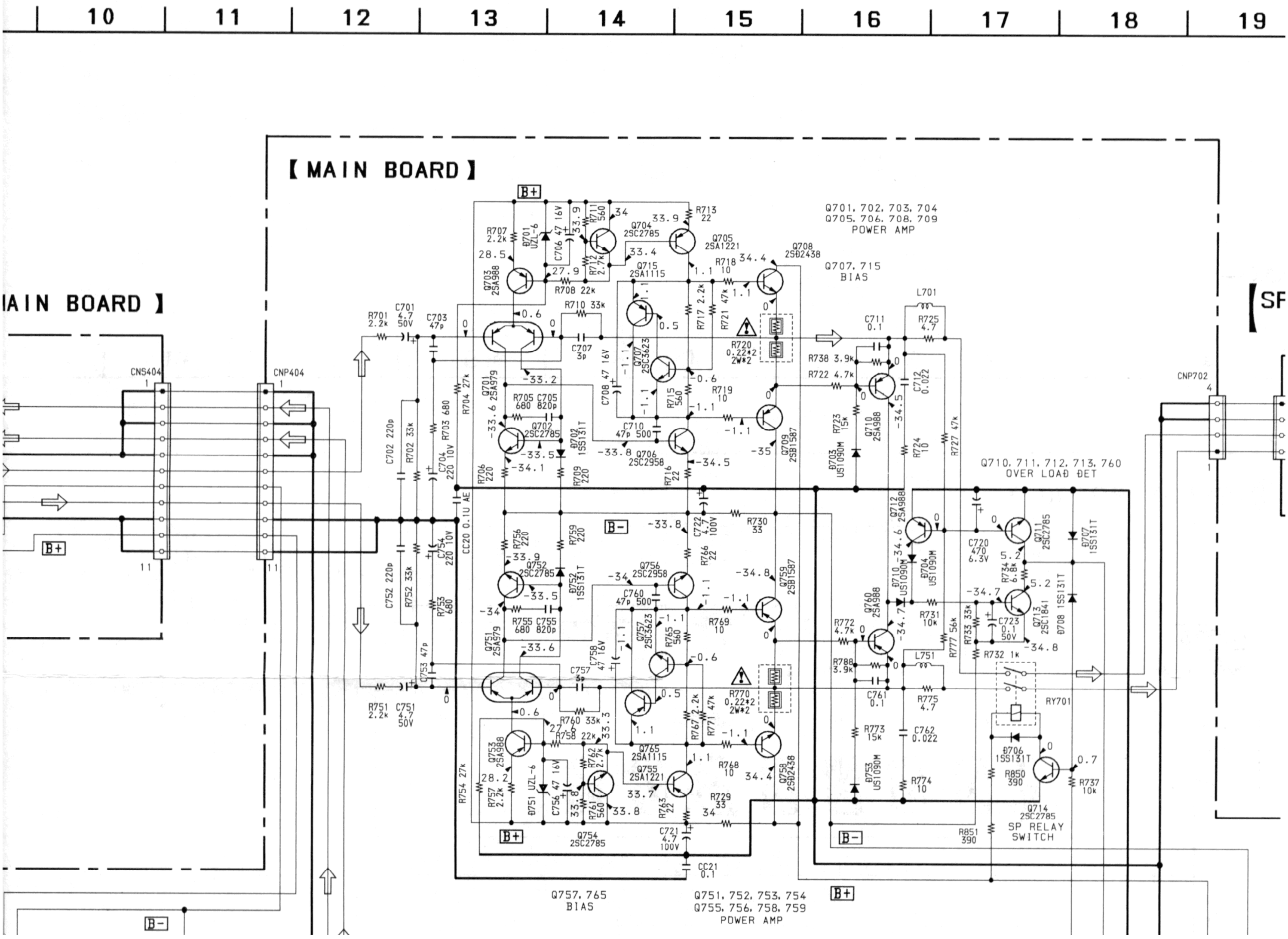
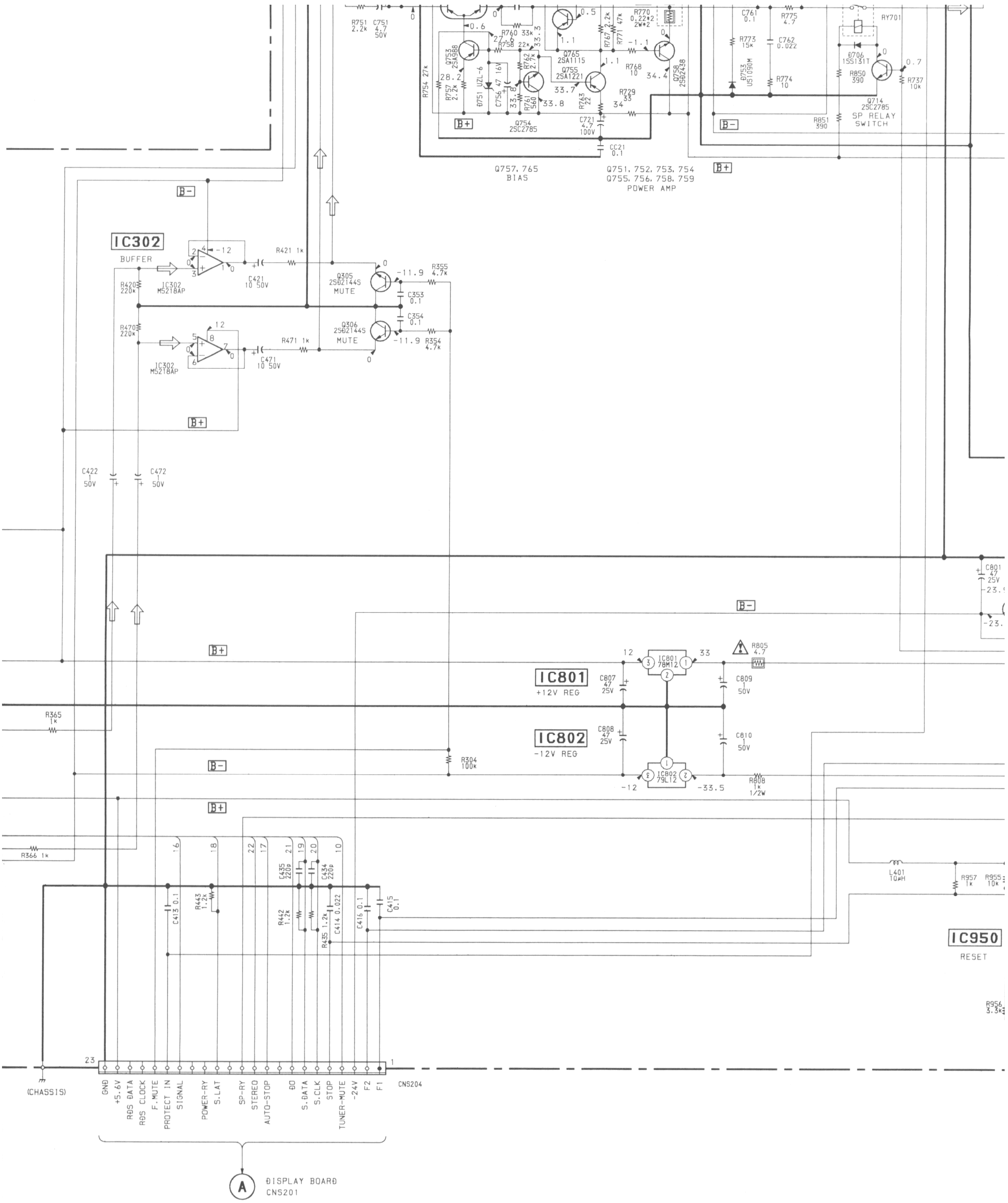
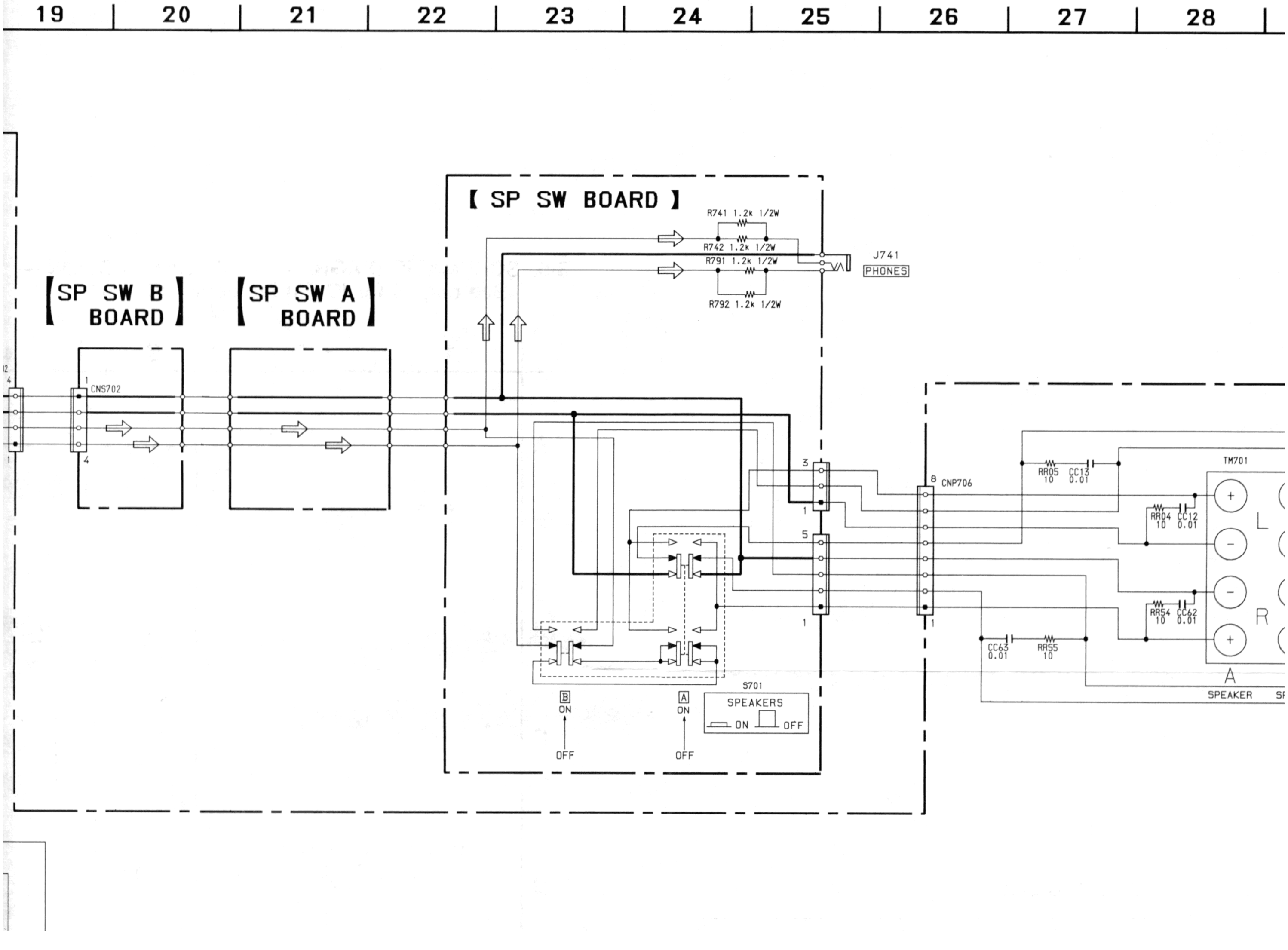
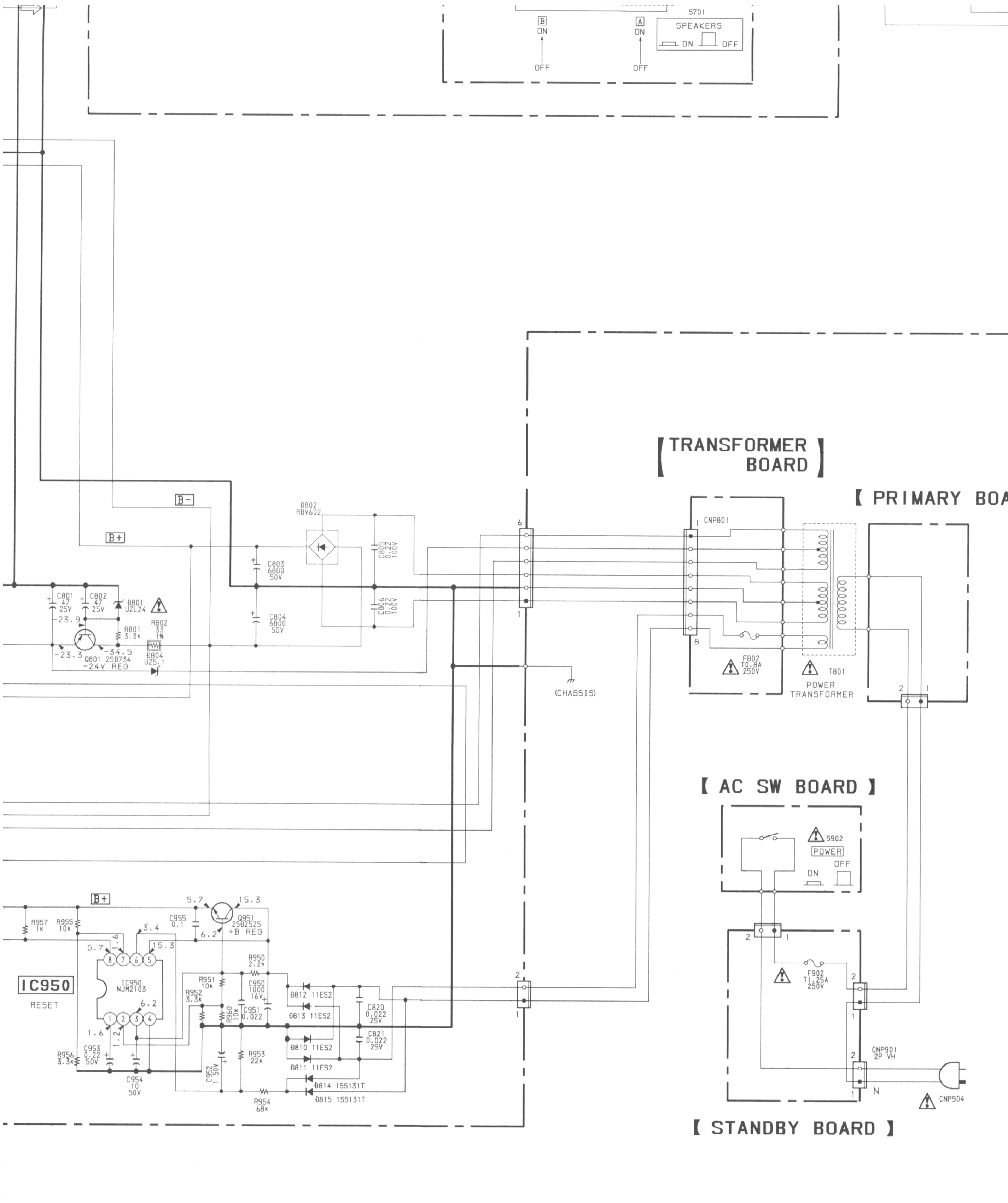
D
E
F
G
【 VOLUME BOARD 】
【 VOL MAIN B
CNP202
LED-
LED+
GND
VOL.UP
VOL.DOWN
-20DB
BASS BOOST
B
DISPLAY BOARD
CNS202
C
TONE BOARD
CNS401
CNP404
L-IN
GND
R-IN
R-OUT
GND
L-OUT
IC404
M5218AP
IC404
BASS BOOST
B+
B-
C420 22p
C425 10 25V
R426 56k
R430 47k
R425 8.2k
C426 10 25V
R427 1k
R480 47k
R475 8.2k
C475 10 25V
C476 10 25V
R477 1k
R476 56k
C470 22p
R494 1M
Q401 2SK246GR
C477 0.33 50V
C478 0.033
C479 100p
R484 390
Q402 2SD2144S
R491 100k
R464 1M
R481 3.3k
R482 150k
R483 6.8k
R441 100k
R469 1M
R431 3.3k
R432 150k
R433 6.8k
Q451 2SK246GR
C427 0.33 50V
C428 0.033
Q452 2SD2144S
R444 1M
C429 100p
R434 390
Q403 2SD2144S -20dB
R446 100
R428 4.7k
R478 4.7k
R496 100
Q453 2SD2144S -20dB
C431 1 50V
C430 1 50V
RV404 VOLUME
CNP402
CNS403
R436 100k
R438 100k
C492 0.22 50V
D421 1SS131T
C432 10 25V
C433 10 25V
R492 1M
-11.9
-11.9
11.3
-0.7
-0.7
11.3
-10.4
-10.4
-12
0


F
G
H
I
J
K
L
M
N
O
P
Q
C427 C428
0.33 0.033
50V
R444
1M
C429 100p
R434 390
11.3
IC302
BUFFER
R420 220k
R470 220k
TU001
FM ANT (300)
FM ANT (300, 75)
GND
AM ANT
FM IF OUT
S.LAT
S.DATA
S.CLOCK
DO
GND
S2
S1
+5V
AM IF OUT
+13V
DET OUT
L OUT
GND
R OUT
T.MUT
TUNED
STEREO
SIGNAL
R449 22k
R448 10k
R447 820
B+
FM 75Ω COAXIAL
TM001 ANTENNA
AM
(CHASSIS)
C422 50V
IC402
EQ AMP
RR01 1.2K
C402 3.3 50V
C404 220p
IC402 M5218AP
C409 3.3 50V
R416 1k
R401 330
R408 10k
R409 47k
C401 220p
R410 560k
R411 820
C403 33 16V
R412 560k
R413 47k
C460 0.1
R417 560k
C405 0.0056
C407 0.0015
C406 0.1
C408 1000p
R414 4.7k
J401 (1/2)
PHONO IN
CD IN
L CH
J402 (1/2)
TAPE/MD REC OUT
TAPE/MD IN
TV/LD AUDIO IN
J403 (1/2)
VIDEO AUDIO OUT
VIDEO AUDIO IN
R402 4.7k
R403 1k
R404 1k
R405 1k
R406 1k
R407 1k
CC01 100P
CC02 100P
CC03 100P
CC04 100P
CC05 100P
CC06 100P
CC07 100P
R365 1k
PHONO
CD
TUNER
COM
VIDEO
TV/MD
TAPE
COM
TAPE.REC
VIDEO.REC
REC.COM
VEE
VDD
S.LAT
RESET
S.DATA
CS
S.CLK
GND
IC401 LC7822
IC401
INPUT SELECTOR
J403 (2/2)
R CH
J402 (2/2)
J401 (2/2)
R457 1k
R456 1k
R455 1k
R454 1k
R453 1k
R452 4.7k
R451 330
CC57 100P
CC56 100P
CC55 100P
CC54 100P
CC53 100P
CC52 100P
CC51 100P
R366 1k
B−
C412 560p
R458 10k
R459 47k
C451 220p
R460 560k
R461 820
C453 33 16V
C455 0.0056
C457 0.0015
R462 560k
R463 47k
C410 0.1
R467 560k
C454 220p
R466 1k
RR51 1.2K
C452 3.3 50V
IC402 M5218AP
C459 3.3 50V
118
23
GND
+5.6V
RDS DATA
RDS CLOCK


10
11
12
13
14
15
16
17
18
19
【MAIN BOARD】
AIN BOARD】
【SP
CNS404
CNP404
CNP702
B+
B-
Q701, 702, 703, 704
Q705, 706, 708, 709
POWER AMP
Q707, 715
BIAS
Q710, 711, 712, 713, 760
OVER LOAD DET
Q757, 765
BIAS
Q751, 752, 753, 754
Q755, 756, 758, 759
POWER AMP
Q714
2SC2785
SP RELAY
SWITCH
RY701
L701
L751
R701 2.2k
C701 4.7 50V
C703 47p
R751 2.2k
C751 4.7 50V
C753 47p
C702 220p
C752 220p
R702 33k
R752 33k
R703 680
R753 680
C704 220 10V
C754 220 10V
CC20 0.1U AE
R704 27k
R754 27k
Q701 2SA979
Q751 2SA979
Q702 2SC2785
Q752 2SC2785
Q703 2SA988
Q753 2SA988
D701 UZL-6
D751 UZL-6
C706 47 16V
C756 47 16V
R707 2.2k
R757 2.2k
R708 22k
R758 22k
R710 33k
R760 33k
R711 560
R761 560
R712 2.7k
R762 2.7k
R713 22
R763 22
Q704 2SC2785
Q754 2SC2785
Q705 2SA1221
Q755 2SA1221
Q715 2SA1115
Q765 2SA1115
Q707 2SC3623
Q757 2SC3623
Q706 2SC2958
Q756 2SC2958
Q708 2SD2438
Q758 2SD2438
Q709 2SB1587
Q759 2SB1587
C707 3p
C757 3p
C708 47 16V
C758 47 16V
C710 47p 500
C760 47p 500
R705 680
C705 820p
R755 680
C755 820p
R706 220
R756 220
R709 220
R759 220
D702 1SS131T
D752 1SS131T
R715 560
R765 560
R716 22
R766 22
R717 2.2k
R767 2.2k
R718 10
R768 10
R719 10
R769 10
R721 47k
R771 47k
R720 0.22*2 2W*2
R770 0.22*2 2W*2
C722 4.7 100V
C721 4.7 100V
CC21 0.1
R729 33
R730 33
C711 0.1
C761 0.1
R725 4.7
R775 4.7
R738 3.9k
R788 3.9k
R722 4.7k
R772 4.7k
R723 15k
R773 15k
D703 US1090M
D753 US1090M
Q710 2SA988
Q760 2SA988
C712 0.022
C762 0.022
R724 10
R774 10
R727 47k
R777 56k
Q712 2SA988
D710 US1090M
D704 US1090M
C720 470 6.3V
Q711 2SC2785
R734 6.8k
Q713 2SC1841
C723 0.1 50V
R731 10k
R733 33k
R732 1k
D707 1SS131T
D708 1SS131T
D706 1SS131T
R850 390
R851 390
R737 10k
28.5
27.9
33.9
34
33.4
1.1
34.4
0.6
-33.2
-33.6
-34.1
-33.5
-33.8
-34.5
-35
-1.1
0.5
-34
-34.8
-34.7
-34.6
5.2
0.7
28.2
27.6
33.3
33.7
33.8

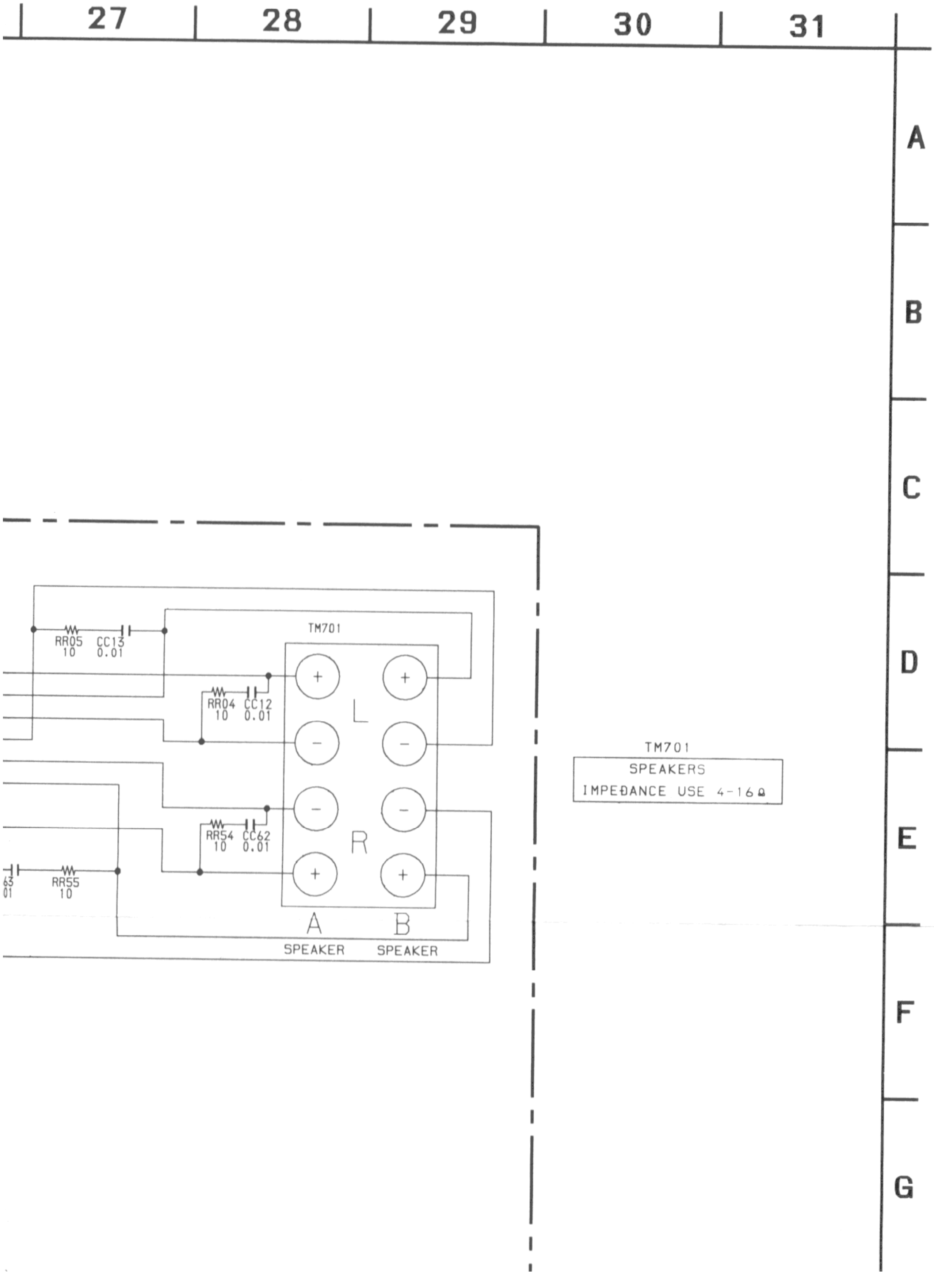

R751 2.2k
C751 4.7 50V
R760 33k
R758 22k
Q753 2SA988
R754 27k
R752 2.2k
D751 UZL-6
C756 47 16V
R761 560
R762 2.7k
Q754 2SC2785
Q765 2SA1115
Q755 2SA1221
R763 22
C721 4.7 100V
CC21 0.1
R767 2.2k
R771 47k
R770 0.22*2 2W*2
R768 10
R729 33
Q758 2SD2438
C761 0.1
R775 4.7
R773 15k
C762 0.022
D753 US1090M
R774 10
RY701
D706 1SS131T
R850 390
R851 390
Q714 2SC2785
R737 10k
SP RELAY SWITCH
Q757, 765 BIAS
Q751, 752, 753, 754
Q755, 756, 758, 759
POWER AMP
IC302
BUFFER
IC302 M5218AP
R420 220k
R470 220k
R421 1k
C421 10 50V
R471 1k
C471 10 50V
Q305 2SD2144S MUTE
Q306 2SD2144S MUTE
R355 4.7k
R354 4.7k
C353 0.1
C354 0.1
-11.9
C422 1 50V
C472 1 50V
B+
B-
R365 1k
R366 1k
R304 100k
IC801
+12V REG
IC801 78M12
IC802
-12V REG
IC802 79L12
C807 47 25V
C808 47 25V
C809 1 50V
C810 1 50V
R805 4.7
R808 1k 1/2W
C801 47 25V
L401 10µH
R957 1k
R955 10k
R956 3.3k
IC950
RESET
C413 0.1
R443 1.2k
C435 220p
C434 220p
R442 1.2k
R435 1.2k
C414 0.022
C416 0.1
C415 0.1
(CHASSIS)
CNS204
GND
+5.6V
RDS DATA
RDS CLOCK
F.MUTE
PROTECT IN
SIGNAL
POWER-RY
S.LAT
SP-RY
STEREO
AUTO-STOP
DO
S.DATA
S.CLK
STOP
TUNER-MUTE
-24V
F2
F1
A
DISPLAY BOARD CNS201

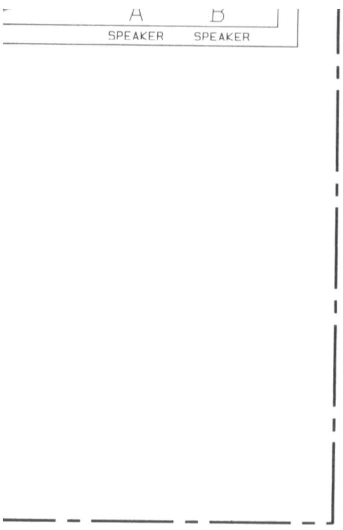

19
20
21
22
23
24
25
26
27
28
【SP SW B BOARD】
【SP SW A BOARD】
【SP SW BOARD】
12
4
1
1
CNS702
4
R741 1.2k 1/2W
R742 1.2k 1/2W
R791 1.2k 1/2W
R792 1.2k 1/2W
J741
PHONES
3
1
5
1
S701
SPEAKERS
ON
OFF
B
ON
OFF
A
ON
OFF
8
CNP706
1
RR05
10
CC13
0.01
TM701
RR04
10
CC12
0.01
L
RR54
10
CC62
0.01
R
CC63
0.01
RR55
10
A
SPEAKER
SP


S701
SPEAKERS
B ON
OFF
A ON
OFF
ON
OFF
TRANSFORMER BOARD
PRIMARY BOARD
B-
B+
D802
RBV602
C803
6800
50V
C804
6800
50V
C805
0.22
100V
C806
0.22
100V
C801
47
25V
C802
47
25V
D801
UZL24
-23.9
R801
3.3k
R802
33
1%
-23.3
-34.5
Q801 2SB734
-24V REG
D804
UZ5.1
6
1
(CHASSIS)
CNP801
1
8
F802
T0.8A
250V
T801
POWER TRANSFORMER
2
1
AC SW BOARD
S902
POWER
ON
OFF
F902
T1.25A
250V
CNP901
2P VH
N
CNP904
STANDBY BOARD
B+
R957
1k
R955
10k
5.7
15.3
C955
0.1
Q951
2SD2525
+B REG
6.2
3.4
5.7
1.6
15.3
IC950
NJM2103
IC950
RESET
6.2
1.6
1.2
R950
2.2k
R951
10k
C950
1000
16V
R952
3.3k
R960
10k
C951
0.022
D812 11ES2
D813 11ES2
C820
0.022
25V
C821
0.022
25V
D810 11ES2
D811 11ES2
R956
3.3k
C953
0.22
50V
C954
10
50V
C952
1 50V
R953
22k
D814 1SS131T
D815 1SS131T
R954
68k
2
1

NOTE

- All c
50WV
and t
- All r
speci
-
-
Note:
-
-
- Volt
unde
no m
- Volt
Volt
tion
- Sign


27
28
29
30
31
A
B
C
D
E
F
G
RR05
10
CC13
0.01
TM701
RR04
10
CC12
0.01
L
RR54
10
CC62
0.01
R
63
01
RR55
10
A
SPEAKER
B
SPEAKER
TM701
SPEAKERS
IMPEDANCE USE 4-16Ω



ARD 】

NOTE

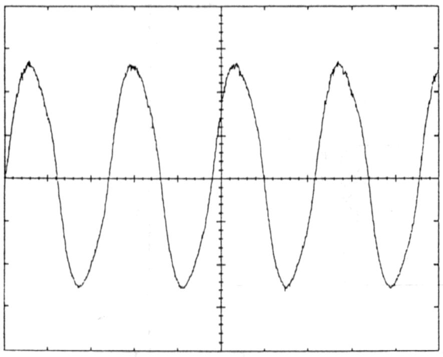
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- :nonflammable resistor.

> Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
> Replace only with part number specified.

- B+ :B+ Line.
- B- :B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (deturned) conditions.
  no mark:FM
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ :FM

• Waveform

① IC201 35pin 5.2Vp-p 4.19MHz



• IC Block Diagrams

— MAIN SECTION —

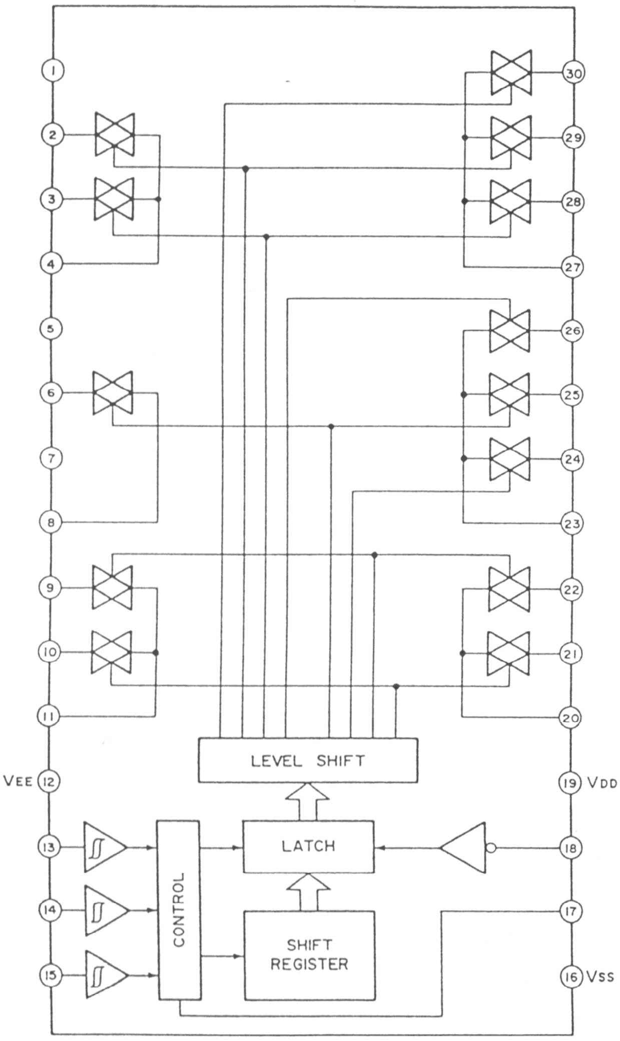
IC401 LC7822

IC950 NJM2103D

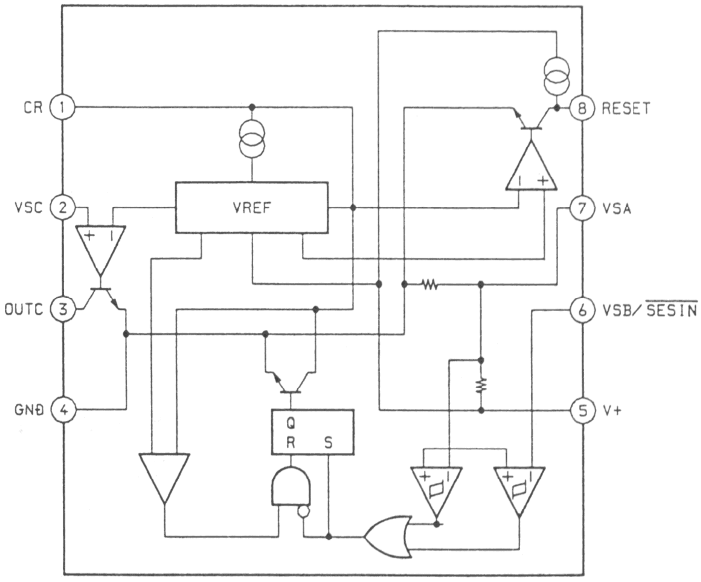
• IC Block Diagrams

— MAIN SECTION —

IC401 LC7822

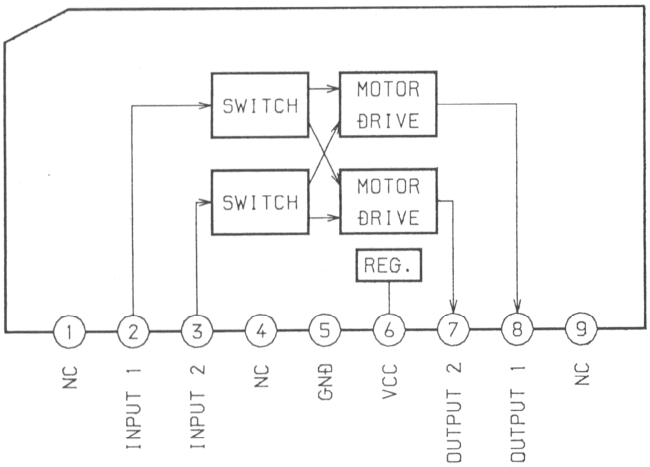

1
2
3
4
5
6
7
8
9
10
11
VEE 12
13
14
15
30
29
28
27
26
25
24
23
22
21
20
19 VDD
18
17
16 VSS
LEVEL SHIFT
LATCH
CONTROL
SHIFT REGISTER

IC950 NJM2103D


CR 1
VSC 2
OUTC 3
GND 4
8 RESET
7 VSA
6 VSB/$\overline{\text{SESIN}}$
5 V+
VREF
Q
R S

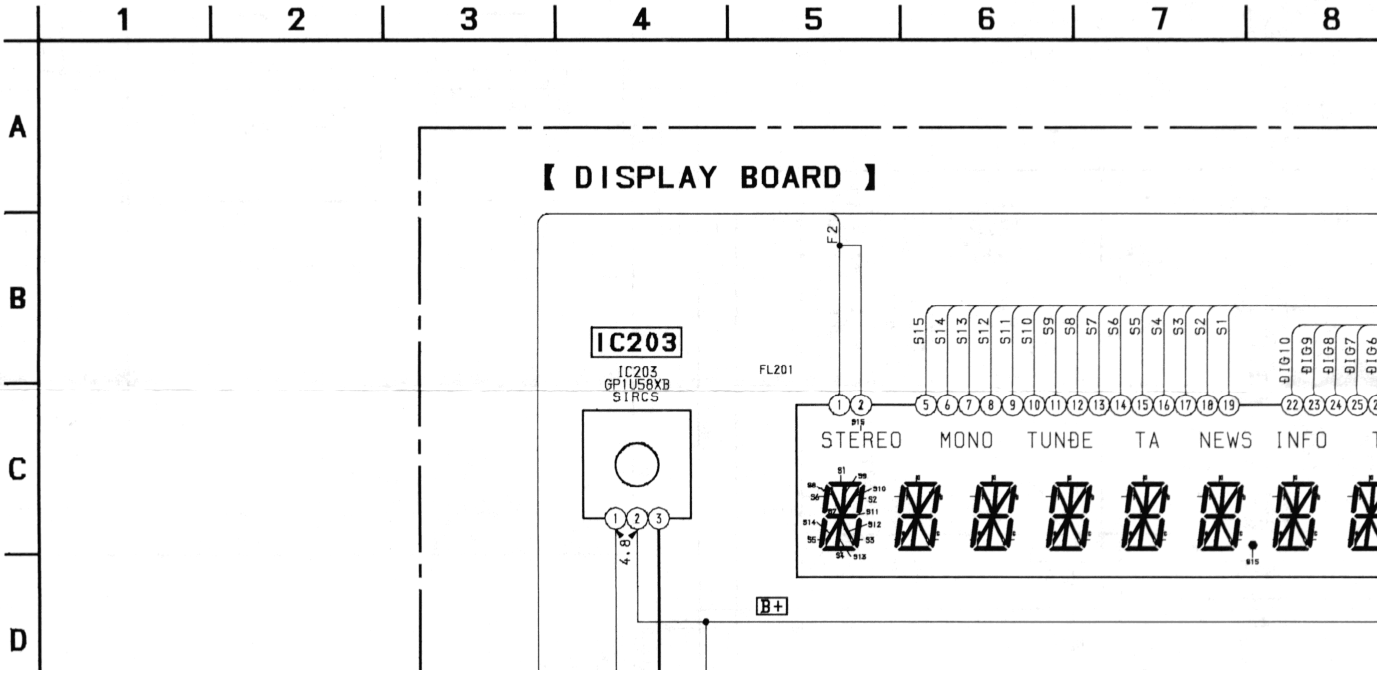
— DISPLAY SECTION —

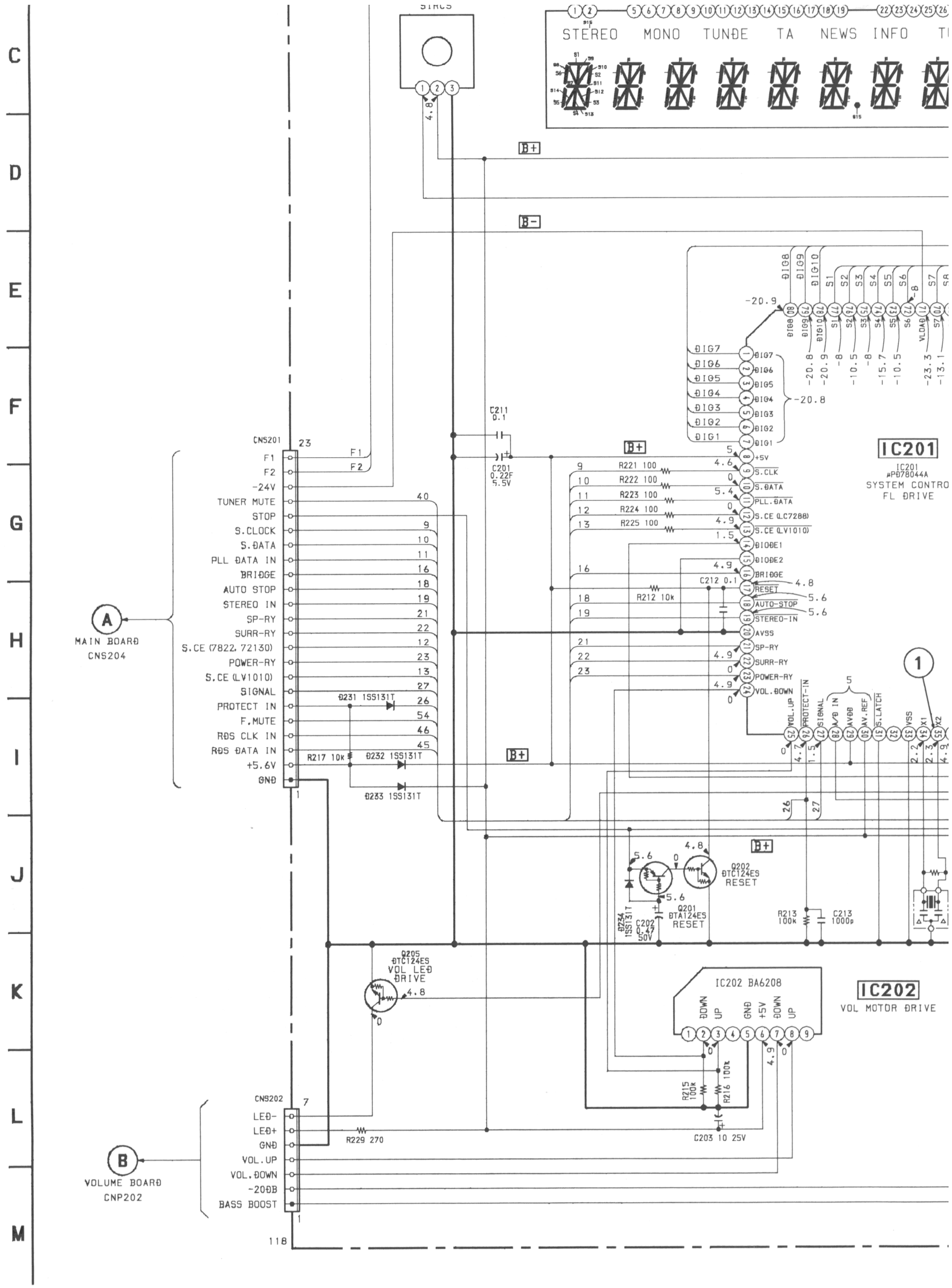
IC202 BA6208

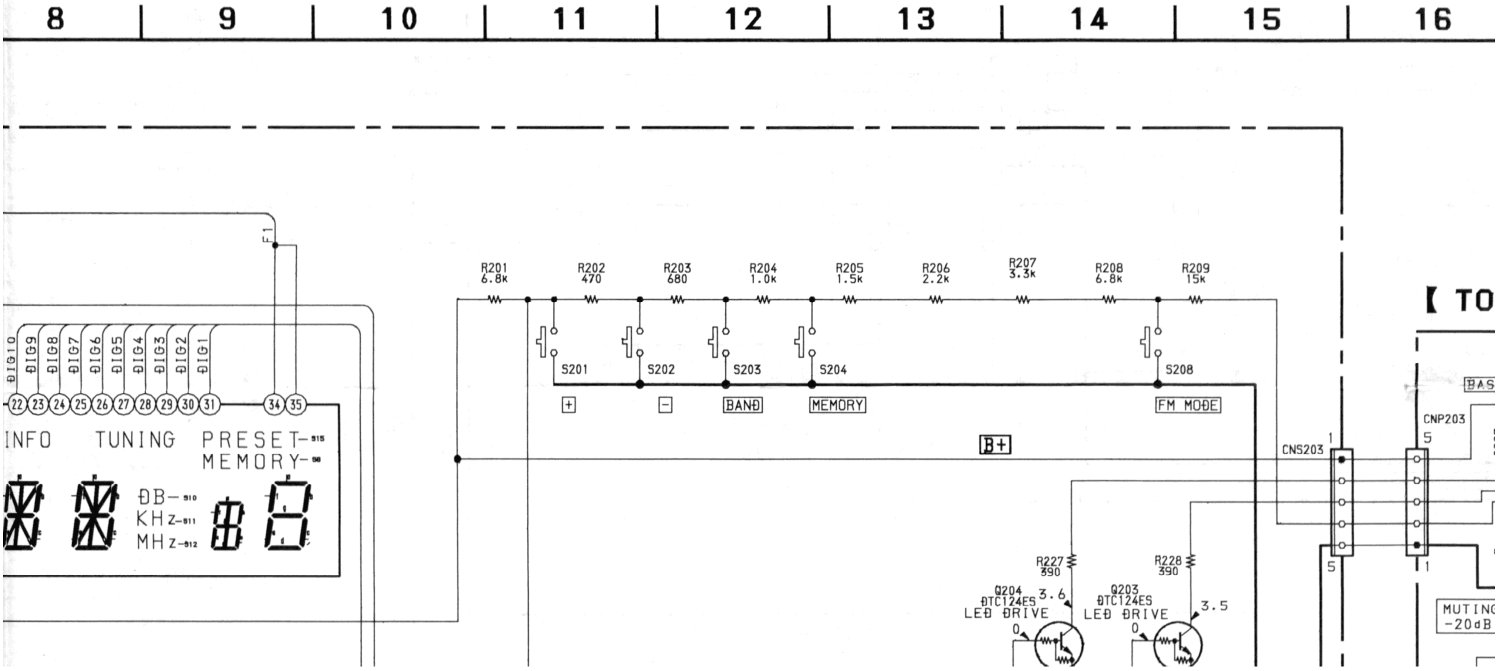

SWITCH
MOTOR DRIVE
SWITCH
MOTOR DRIVE
REG.
1
2
3
4
5
6
7
8
9
NC
INPUT 1
INPUT 2
NC
GND
VCC
OUTPUT 2
OUTPUT 1
NC

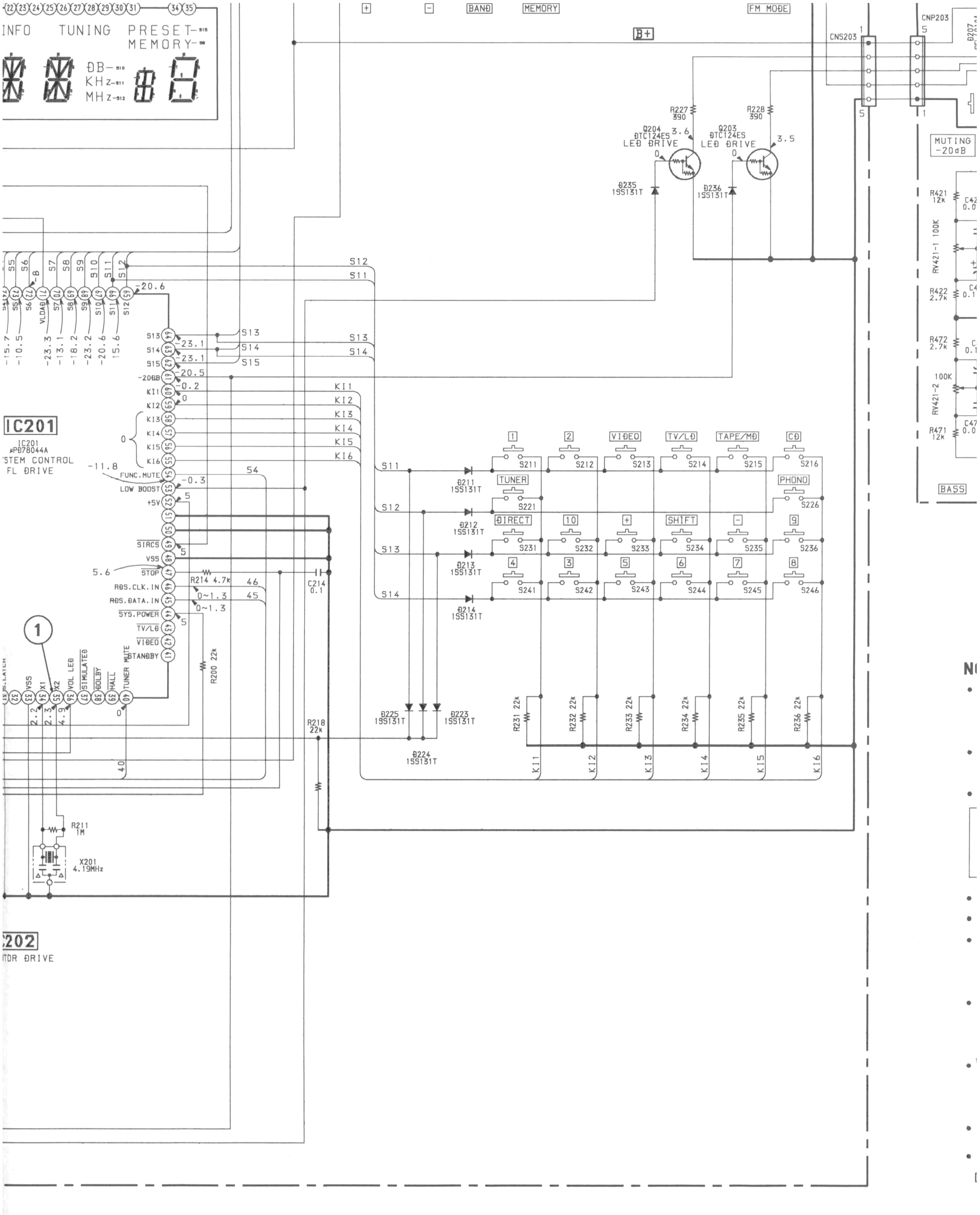
3-5. SCHEMATIC DIAGRAM — DISPLAY SECTION —

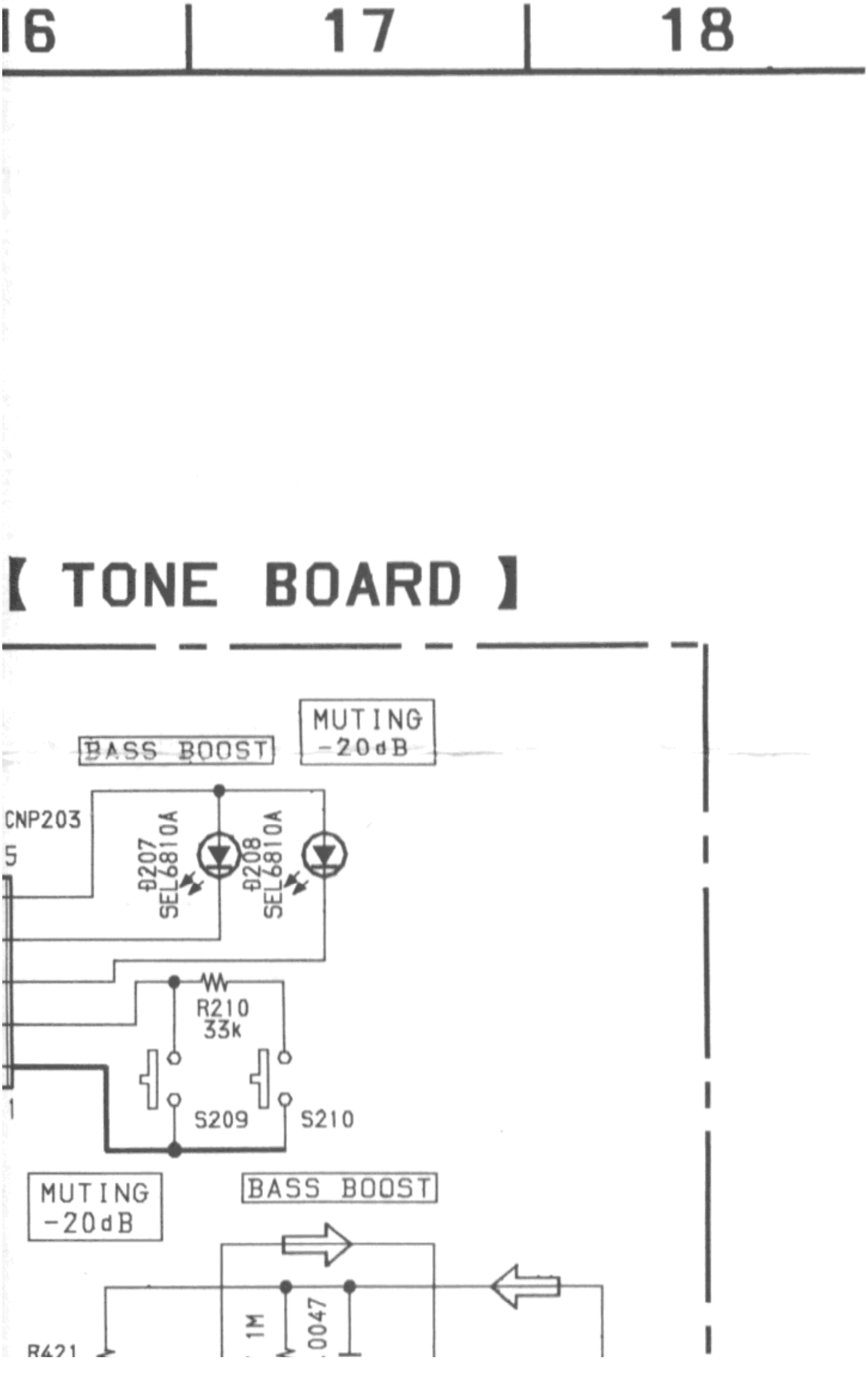
• See page 9 for IC Pin Function. (IC201)

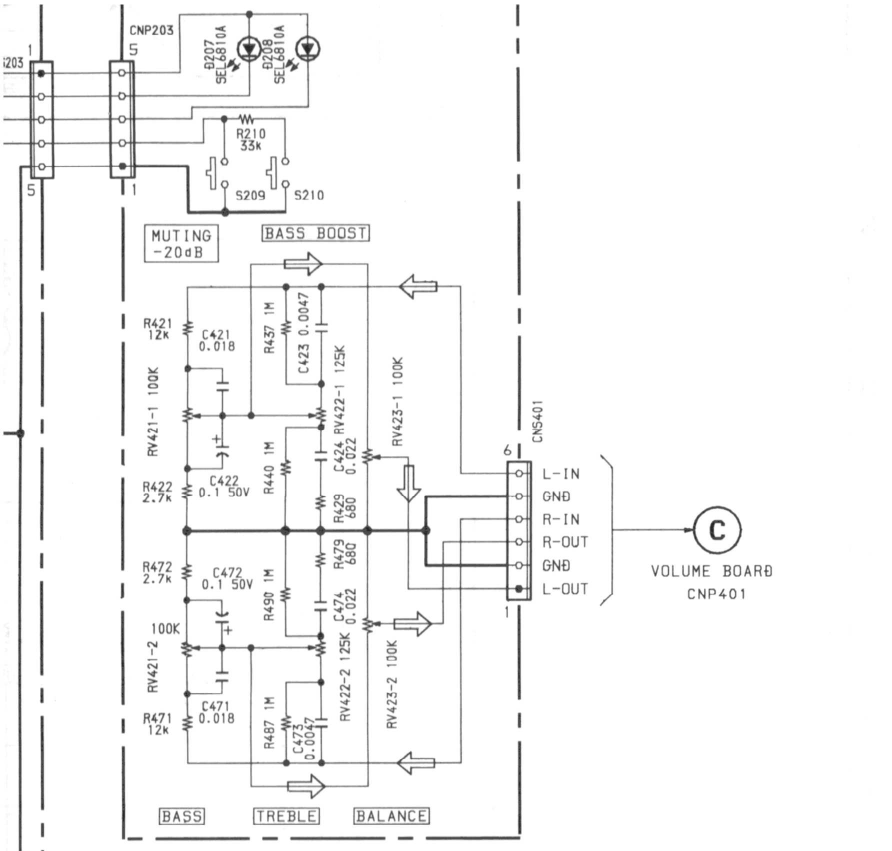

1
2
3
4
5
6
7
8
A
B
C
D
【 DISPLAY BOARD 】
IC203
IC203
GP1U58XB
SIRCS
4.8
FL201
F2
S15
S14
S13
S12
S11
S10
S9
S8
S7
S6
S5
S4
S3
S2
S1
DIG10
DIG9
DIG8
DIG7
DIG6
STEREO
MONO
TUNDE
TA
NEWS
INFO
B+


C
D
E
F
G
H
I
J
K
L
M
STEREO
MONO
TUNED
TA
NEWS
INFO
B+
B-
CN5201
F1
F2
-24V
TUNER MUTE
STOP
S.CLOCK
S.DATA
PLL DATA IN
BRIDGE
AUTO STOP
STEREO IN
SP-RY
SURR-RY
S.CE (7822, 72130)
POWER-RY
S.CE (LV1010)
SIGNAL
PROTECT IN
F.MUTE
RDS CLK IN
RDS DATA IN
+5.6V
GND
A
MAIN BOARD
CN5204
C211
0.1
C201
0.22F
5.5V
R221 100
R222 100
R223 100
R224 100
R225 100
R212 10k
C212 0.1
D231 1SS131T
D232 1SS131T
D233 1SS131T
R217 10k
IC201
IC201
μPD78044A
SYSTEM CONTRO
FL DRIVE
DIG1
DIG2
DIG3
DIG4
DIG5
DIG6
DIG7
DIG8
DIG9
DIG10
S1
S2
S3
S4
S5
S6
S7
+5V
S.CLK
S.DATA
PLL.DATA
S.CE (LC7288)
S.CE (LV1010)
DIODE1
DIODE2
BRIDGE
RESET
AUTO-STOP
STEREO-IN
AVSS
SP-RY
SURR-RY
POWER-RY
VOL.DOWN
VOL.UP
PROTECT-IN
SIGNAL
B/W IN
AVDD
AV.REF
S.LATCH
VSS
X1
X2
VLOAD
-20.9
-20.8
1
Q202
DTC124ES
RESET
Q201
DTA124ES
RESET
D234
1SS131T
C202
0.47
50V
R213
100k
C213
1000p
Q205
DTC124ES
VOL LED
DRIVE
IC202 BA6208
IC202
VOL MOTOR DRIVE
DOWN
UP
GND
+5V
R215
100k
R216 100k
C203 10 25V
CN9202
LED-
LED+
GND
VOL.UP
VOL.DOWN
-20DB
BASS BOOST
R229 270
B
VOLUME BOARD
CNP202
118


8
9
10
11
12
13
14
15
16
F1
DIG10
DIG9
DIG8
DIG7
DIG6
DIG5
DIG4
DIG3
DIG2
DIG1
22
23
24
25
26
27
28
29
30
31
34
35
INFO
TUNING
PRESET-S15
MEMORY-S6
DB-S10
KHz-S11
MHz-S12
R201 6.8k
R202 470
R203 680
R204 1.0k
R205 1.5k
R206 2.2k
R207 3.3k
R208 6.8k
R209 15k
S201
S202
S203
S204
S208
+
−
BAND
MEMORY
FM MODE
B+
CNS203
1
5
CNP203
5
1
R227 390
R228 390
Q204 DTC124ES
LED DRIVE
3.6
0
Q203 DTC124ES
LED DRIVE
3.5
0
【 TO
BAS
MUTING
-20dB


INFO
TUNING
PRESET
MEMORY
ÐB
KHz
MHz
+
−
BAND
MEMORY
FM MODE
B+
CNS203
CNP203
R227 390
R228 390
Q204 ÐTC124ES LEÐ ÐRIVE
Q203 ÐTC124ES LEÐ ÐRIVE
Ð235 1SS131T
Ð236 1SS131T
MUTING -20dB
R421 12k
RV421-1 100K
R422 2.7k
R472 2.7k
RV421-2 100K
R471 12k
BASS
IC201
IC201 μPD78044A SYSTEM CONTROL FL ÐRIVE
S13
S14
S15
-20ÐB
KI1
KI2
KI3
KI4
KI5
KI6
FUNC.MUTE
LOW BOOST
+5V
SIRCS
VSS
STOP
RÐS.CLK.IN
RÐS.DATA.IN
SYS.POWER
TV/LÐ
VIÐEO
STANÐBY
VSS
X1
X2
VOL LEÐ
SIMULATED
ÐOLBY
HALL
TUNER MUTE
R214 4.7k
C214 0.1
R200 22k
R218 22k
R211 1M
X201 4.19MHz
IC202
MOTOR ÐRIVE
S11
S12
Ð211 1SS131T
Ð212 1SS131T
Ð213 1SS131T
Ð214 1SS131T
Ð225 1SS131T
Ð223 1SS131T
Ð224 1SS131T
1
2
VIÐEO
TV/LÐ
TAPE/MÐ
CÐ
S211
S212
S213
S214
S215
S216
TUNER
PHONO
S221
S226
ÐIRECT
10
+
SHIFT
−
9
S231
S232
S233
S234
S235
S236
4
3
5
6
7
8
S241
S242
S243
S244
S245
S246
R231 22k
R232 22k
R233 22k
R234 22k
R235 22k
R236 22k
①


16
17
18
【 TONE BOARD 】
BASS BOOST
MUTING
-20dB
CNP203
5
D207
SEL6810A
D208
SEL6810A
R210
33k
S209
S210
1
MUTING
-20dB
BASS BOOST
1M
.0047
R421


CNP203
5
1
D207 SEL6810A
D208 SEL6810A
R210 33k
S209
S210
MUTING -20dB
BASS BOOST
R421 12k
C421 0.018
R437 1M
C423 0.0047
RV421-1 100K
RV422-1 125K
RV423-1 100K
C424 0.022
R440 1M
C422 0.1 50V
R422 2.7k
R429 680
R479 680
R472 2.7k
C472 0.1 50V
R490 1M
C474 0.022
100K
RV421-2
RV422-2 125K
RV423-2 100K
R471 12k
C471 0.018
R487 1M
C473 0.0047
BASS
TREBLE
BALANCE
CNS401
6
L-IN
GND
R-IN
R-OUT
GND
L-OUT
1
C
VOLUME BOARD
CNP401

NOTE

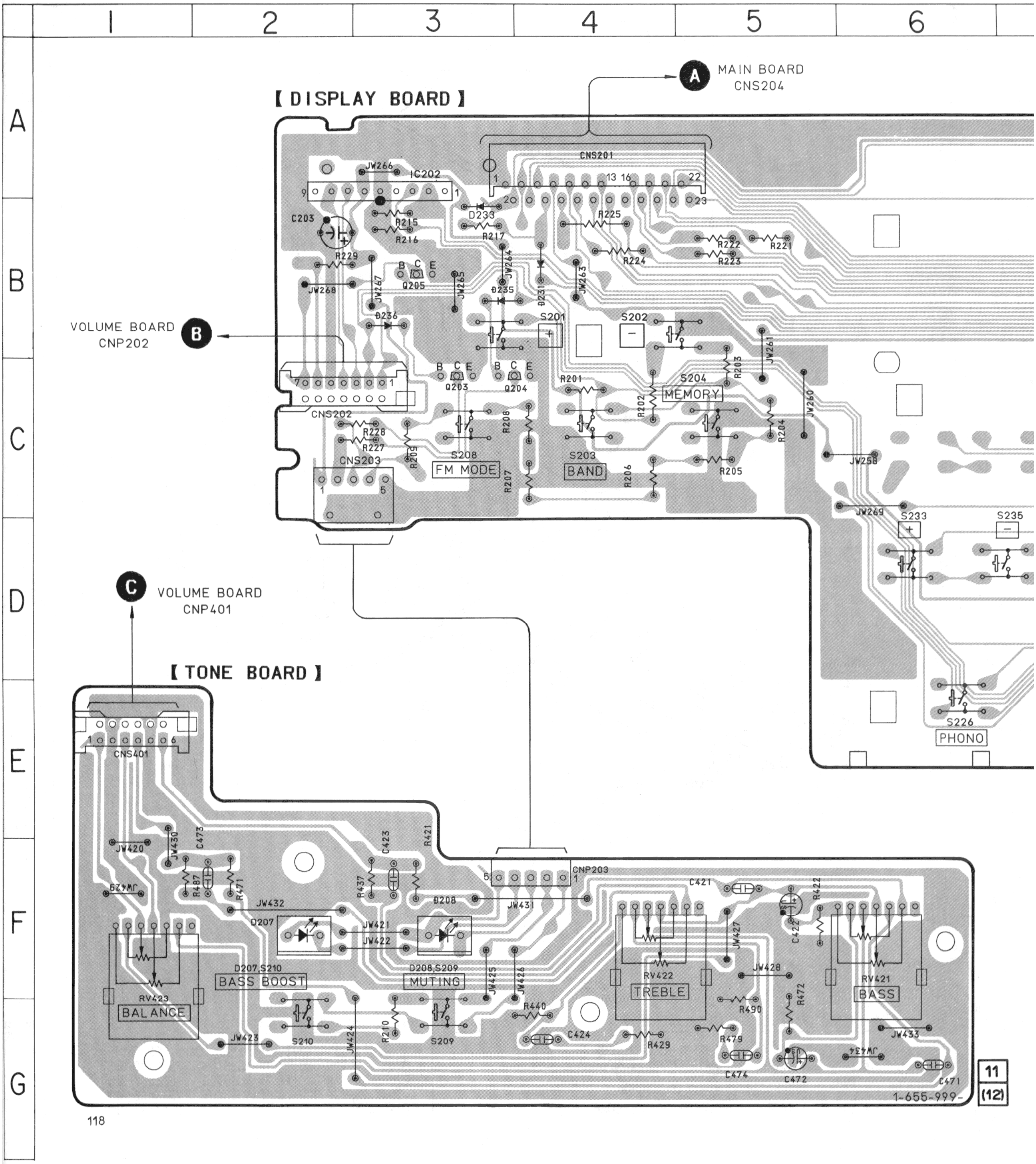
- All capacitors are in μF unless otherwise noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.

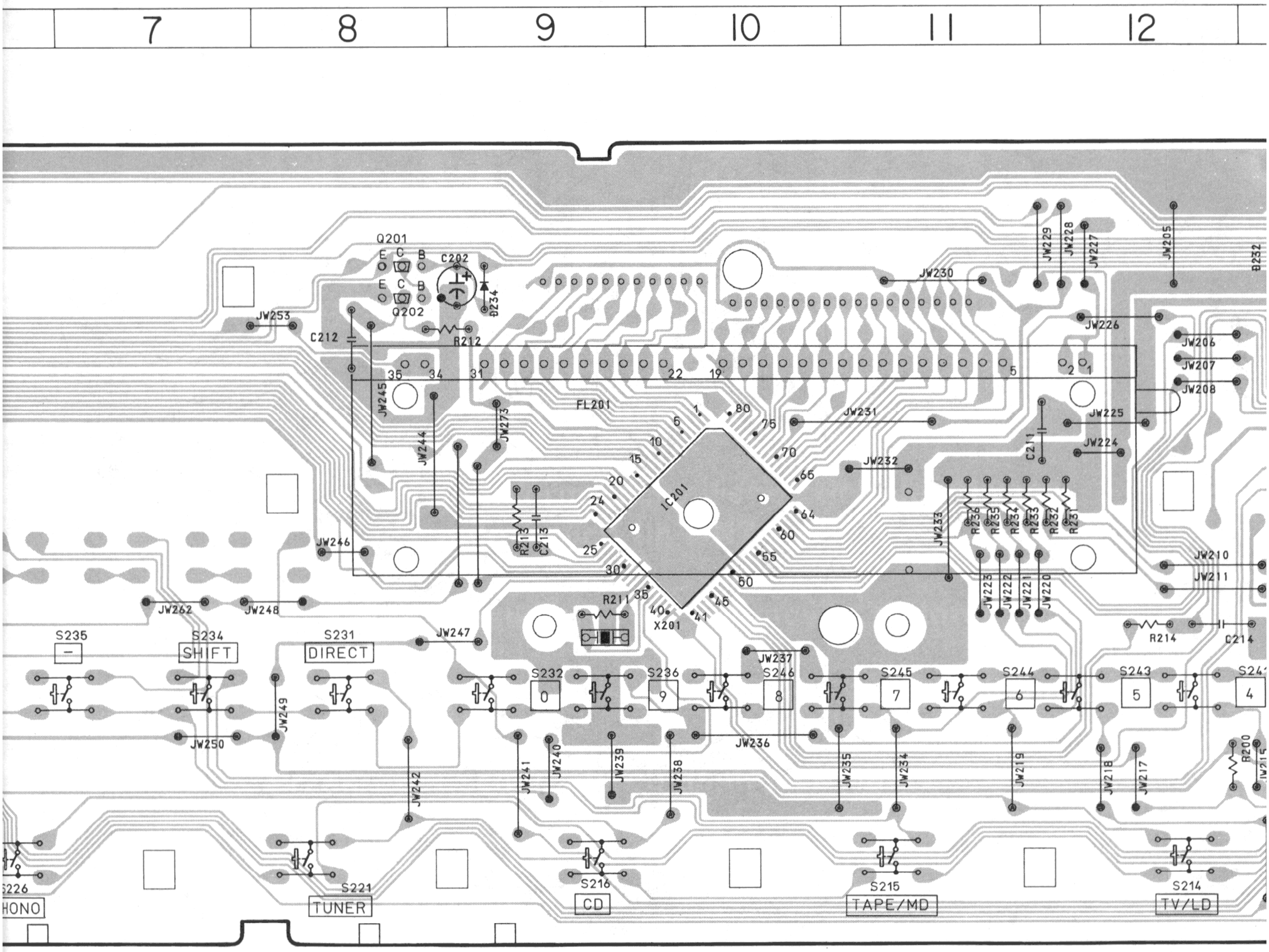
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

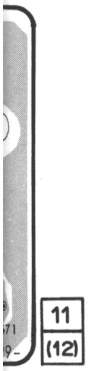
- B+ :B+ Line.
- B− :B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (deturned) conditions.
  no mark: FM
- Voltages are taken with a VOM (Input impedance 10MΩ).
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ :FM

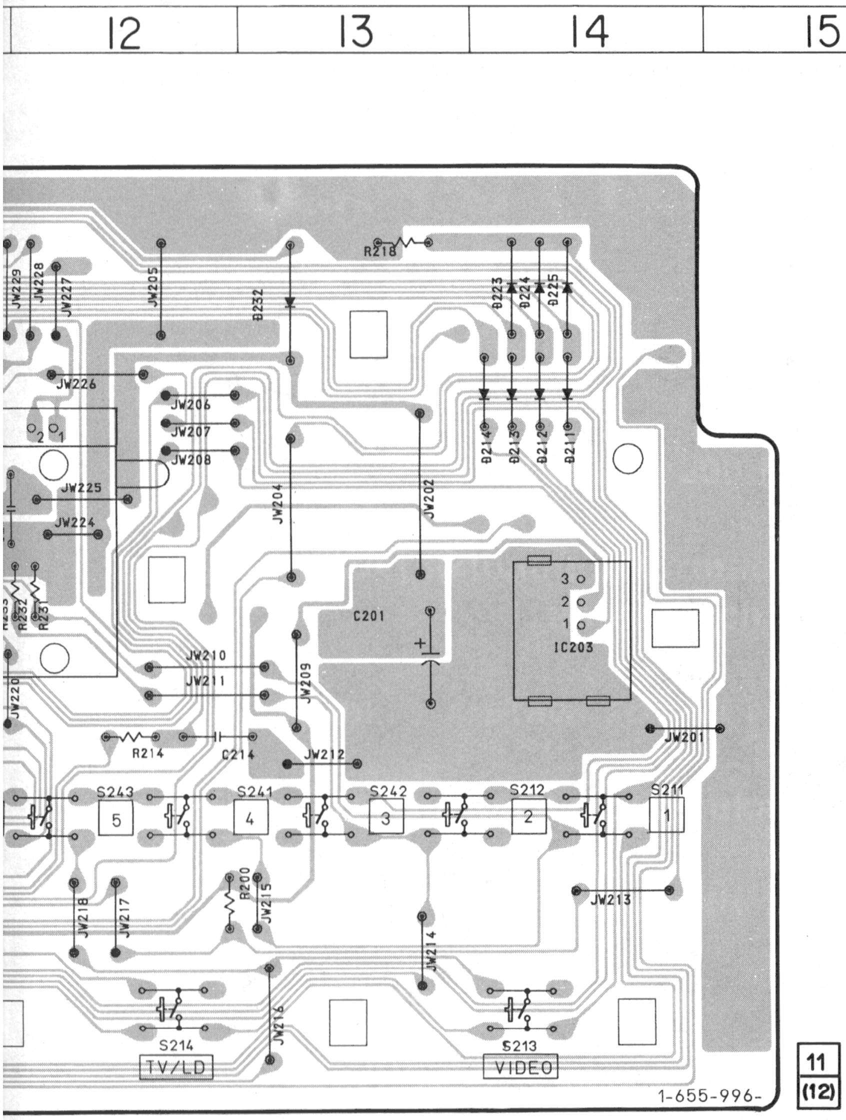
-6. PRINTED WIRING BOARD — DISPLAY SECTION —

• See page 8 for Circuit Boards Location.


1
2
3
4
5
6
A
B
C
D
E
F
G
MAIN BOARD CNS204
[DISPLAY BOARD]
CNS201
IC202
JW266
C203
R215
R216
R217
D233
R225
R222
R221
R224
R223
R229
JW268
JW267
Q205
JW265
JW264
D235
D231
JW263
D236
S201
S202
JW261
VOLUME BOARD CNP202
Q203
Q204
R201
S204
MEMORY
R203
R202
JW260
CNS202
R228
R227
CNS203
R209
S208
FM MODE
R208
R207
S203
BAND
R206
R205
R204
JW258
JW269
S233
S235
S226
PHONO
VOLUME BOARD CNP401
[TONE BOARD]
CNS401
JW420
JW430
C473
C423
R421
JW429
R487
R471
R437
CNP203
C421
R422
JW432
D208
JW431
D207
JW421
JW422
JW427
C422
D207,S210
BASS BOOST
D208,S209
MUTING
JW425
JW426
JW428
RV422
TREBLE
R472
RV421
BASS
RV423
BALANCE
R440
R490
JW423
S210
JW424
R210
S209
C424
R429
R479
JW433
JW434
C474
C472
C471
1-655-999-
11
(12)
118


7
8
9
10
11
12
Q201
E C B
E C B
Q202
C202
D234
JW253
C212
R212
JW230
JW229
JW228
JW227
JW205
D232
JW226
JW206
JW207
JW208
JW225
JW224
C211
35
34
31
22
19
5
2
1
FL201
JW245
JW244
JW273
JW231
JW232
1
80
75
5
10
15
20
24
70
65
64
60
55
50
45
41
40
35
30
25
IC201
R213
C213
JW246
JW233
R236
R235
R234
R233
R232
R231
JW223
JW222
JW221
JW220
JW210
JW211
R211
X201
JW262
JW248
JW247
R214
C214
S235
−
S234
SHIFT
S231
DIRECT
S232
0
S236
9
JW237
S246
8
S245
7
S244
6
S243
5
S241
4
JW249
JW250
JW236
JW242
JW241
JW240
JW239
JW238
JW235
JW234
JW219
JW218
JW217
R200
JW215
S226
HONO
S221
TUNER
S216
CD
S215
TAPE/MD
S214
TV/LD


71
9-
11
(12)


12
13
14
15
JW229
JW228
JW227
JW205
D232
R218
D223
D224
D225
JW226
JW206
JW207
JW208
JW225
JW224
R232
R231
JW220
D214
D213
D212
D211
JW204
JW202
C201
3
2
1
IC203
JW210
JW211
JW209
R214
C214
JW212
JW201
S243
5
S241
4
S242
3
S212
2
S211
1
JW218
JW217
R200
JW215
JW213
JW214
S214
TV/LD
JW216
S213
VIDEO
1-655-996-
11
(12)

- **Semiconductor Location**

Ref. No.	Location
D207	F-2
D208	F-3
D211	B-14
D212	B-14
D213	B-14
D214	B-14
D223	B-14
D224	B-14
D225	B-14
D231	B-4
D232	B-13
D233	B-3
D234	B-9
D235	B-3
D236	B-3
IC201	C-10
IC202	A-3
IC203	C-14
Q201	B-8
Q202	B-8
Q203	C-3
Q204	C-4
Q205	B-3

Note:

- o—— : parts extracted from the component side.
- ▨ : Pattern on the side which is seen.

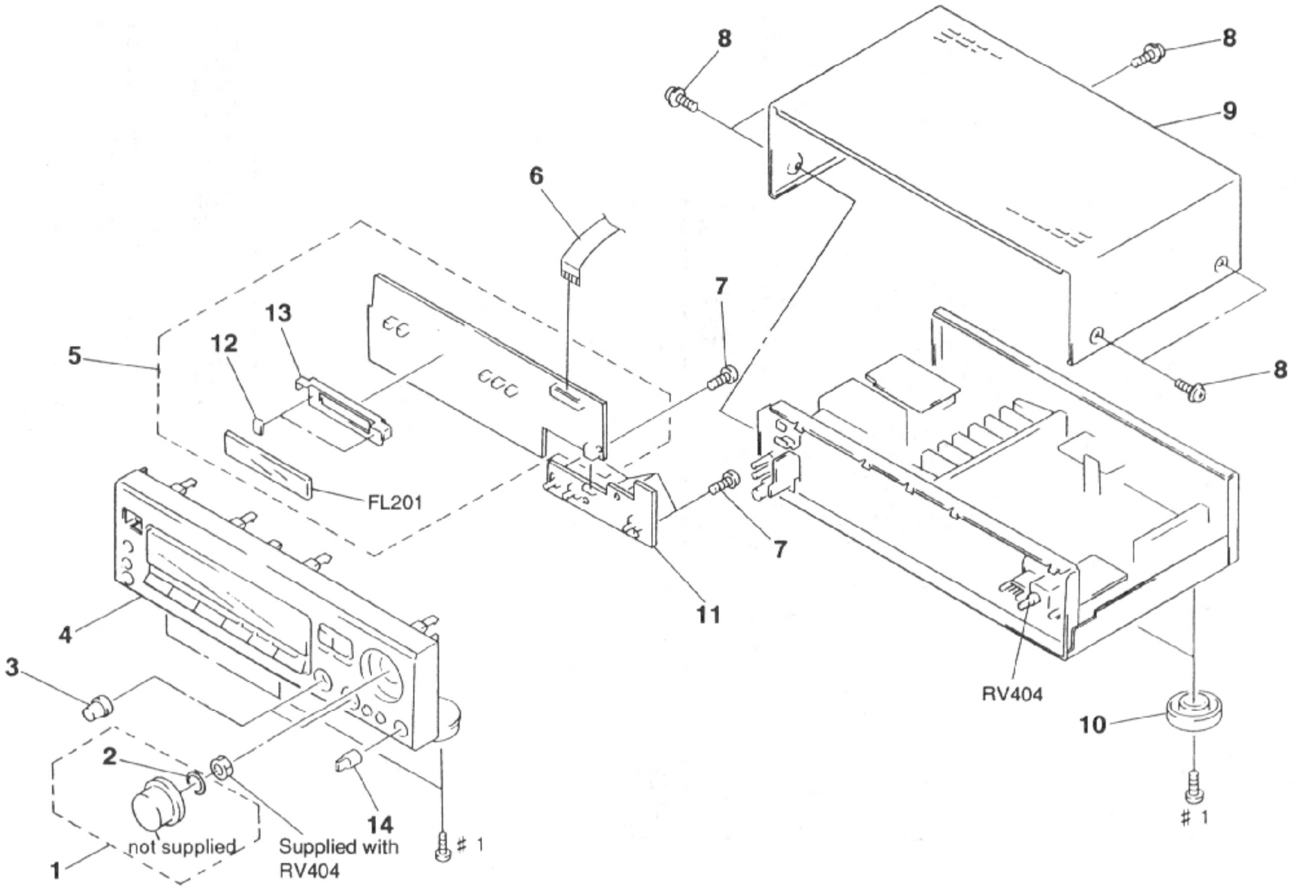
SECTION 4
EXPLODED VIEWS

NOTE:
- Items marked " ∗ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

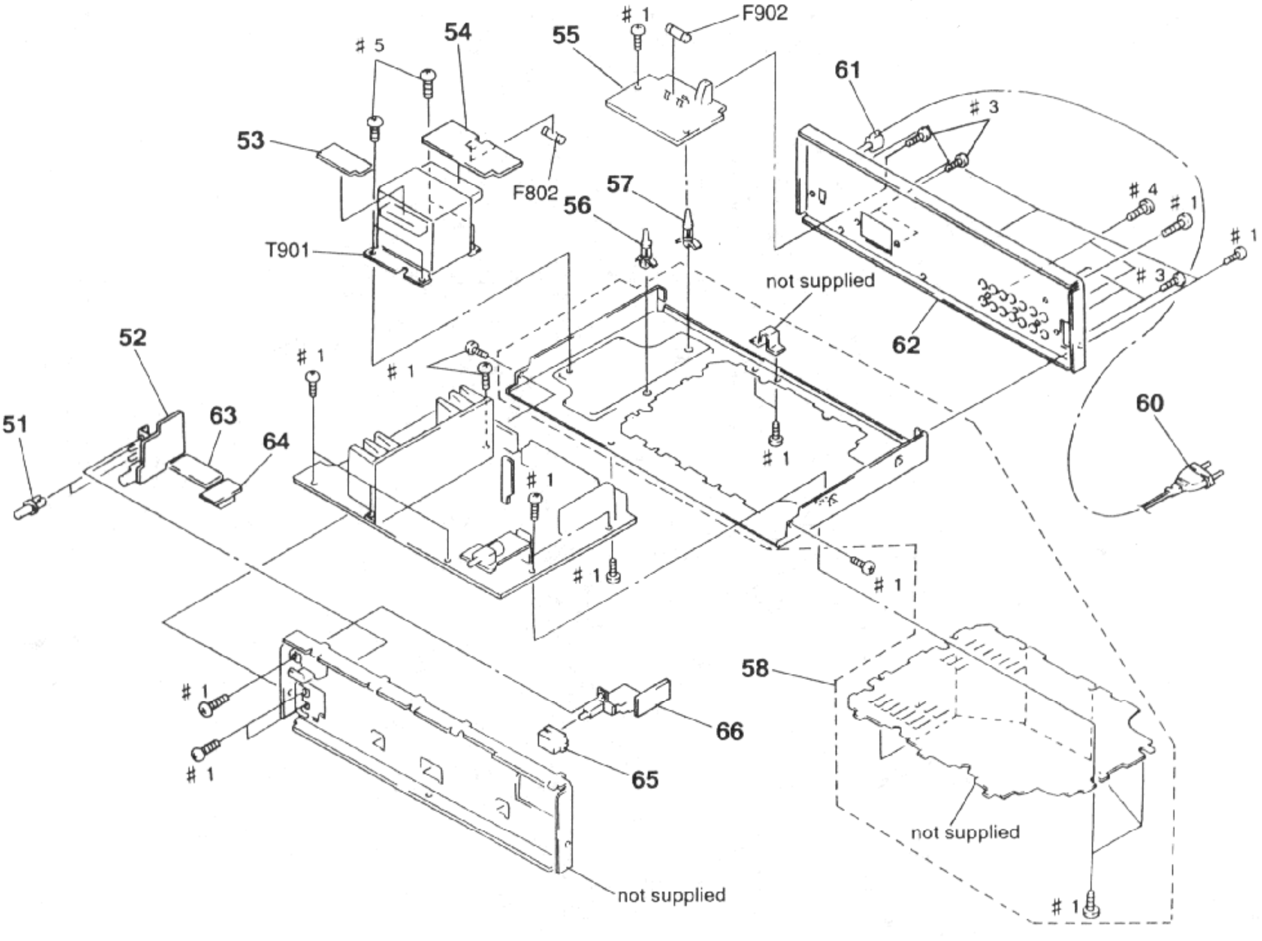
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

4-1. CASE AND FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	X-4945-824-1	KNOB (VOL) ASSY	
2	3-350-426-01	SPRING, RING	
3	4-943-420-01	KNOB (DIA. 19)	
4	X-4945-823-2	PANEL ASSY, FRONT	
* 5	A-4377-518-A	DISPLAY BOARD, COMPLETE	
6	1-773-744-11	WIRE (FLAT TYPE) (23 CORE)	
7	4-951-620-01	SCREW (2.6X8), +BVTP	
8	3-704-366-01	SCREW (CASE) (M3X8)	
9	4-929-294-11	CASE	
10	X-3369-843-1	FOOT ASSY (F58175S)	
* 11	1-655-999-11	TONE BOARD	
* 12	4-921-941-01	CUSHION (FL)	
* 13	4-943-107-11	HOLDER (FL TUBE)	
14	4-957-383-01	KNOB (F14)	
FL201	1-517-141-11	INDICATOR TUBE, FLUORESCENT	
RV404	1-223-882-11	RES, VAR 100K/100K (VOLUME)	

4-2. CHASSIS SECTION

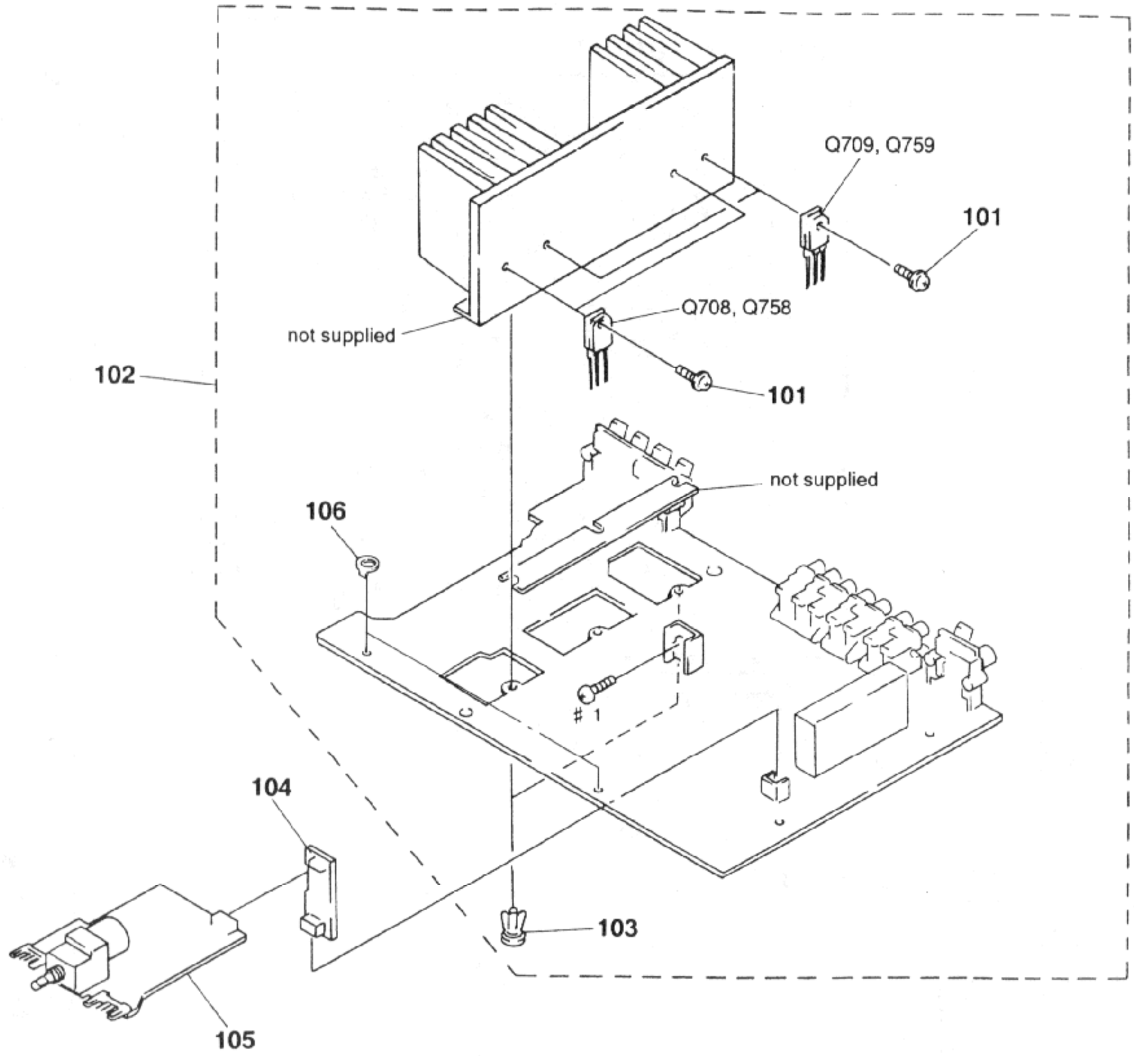


# 5
54
55
# 1
F902
61
53
# 3
F802
57
56
# 4
# 1
T901
# 1
not supplied
# 3
52
# 1
# 1
62
60
51
63
64
# 1
# 1
# 1
# 1
58
# 1
66
# 1
65
not supplied
not supplied
# 1

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
51	4-951-801-01	BUTTON (S)	
* 52	1-656-000-11	SP SW BOARD	
* 53	1-656-007-11	PRIMARY BOARD	
* 54	1-655-998-11	TRANSFORMER BOARD	
* 55	1-656-002-11	STBY BOARD	
* 56	3-346-265-31	HOLDER, PC BOARD	
* 57	4-924-098-31	HOLDER, PC BOARD	
* 58	A-4361-389-A	CHASSIS ASSY	
⚠60	1-769-744-11	CORD, POWER	
61	3-703-244-00	BUSHING, CORD	
* 62	4-972-660-01	PANEL, BACK	
* 63	1-656-004-11	SP SW-A BOARD	
* 64	1-656-005-11	SP SW-B BOARD	
65	4-917-460-01	KNOB, POWER	
* 66	1-656-006-11	AC SW BOARD	
⚠F802	1-532-215-00	FUSE, TIME LAG (0.8A 250V)	
⚠F902	1-532-285-00	FUSE, TIME LAG (1.25A 250V)	
⚠T901	1-427-882-11	TRANSFORMER, POWER	

4-3. MAIN BOARD SECTION


Q709, Q759
101
not supplied
Q708, Q758
102
101
not supplied
106
# 1
104
103
105

Ref. No.	Part No.	Description	Remark
101	3-905-609-01	SCREW (TRANSISTOR)	
* 102	A-4377-520-A	MAIN BOARD, COMPLETE	
103	4-812-134-00	RIVET (DIA. 3.5), NYLON	
* 104	1-655-997-11	VOL-MAIN BOARD	
* 105	A-4377-522-A	VOLUME BOARD, COMPLETE	
* 106	1-537-770-11	TERMINAL BOARD, GROUND	
Q708	8-729-020-72	TRANSISTOR 2SD2438-OPY	
Q709	8-729-020-41	TRANSISTOR 2SB1587-OPY	
Q758	8-729-020-72	TRANSISTOR 2SD2438-OPY	
Q759	8-729-020-41	TRANSISTOR 2SB1587-OPY	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA..., uPB...: μPB...,
  uPC...: μPC..., uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH
- Abbreviation
  G : German model

Ref. No.	Part No.	Description				Remark
*	1-656-006-11	AC SW BOARD				
		***********				
		< SWITCH >				
⚠S902	1-572-267-21	SWITCH, PUSH (AC POWER)(1 KEY)(POWER)				
**						
*	A-4377-518-A	DISPLAY BOARD, COMPLETE				
		***********************				
*	4-921-941-01	CUSHION (FL)				
*	4-943-107-11	HOLDER (FL TUBE)				
		< CAPACITOR >				
C201	1-104-905-11	DOUBLE LAYERS	0.22F			
C202	1-124-465-00	ELECT	0.47uF	20%	50V	
C203	1-126-096-11	ELECT	10uF	20%	35V	
C211	1-164-159-11	CERAMIC	0.1uF		50V	
C212	1-164-159-11	CERAMIC	0.1uF		50V	
C213	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C214	1-164-159-11	CERAMIC	0.1uF		50V	
		< CONNECTOR >				
CNS201	1-766-036-11	CONNECTOR, FFC(LIF(NON-ZIF))23P				
CNS202	1-770-400-11	HOUSING, CONNECTOR(PC BOARD)7P				
* CNS203	1-565-481-11	CONNECTOR, BOARD TO BOARD 5P				
		< DIODE >				
D211	8-719-815-85	DIODE	1S1585			
D212	8-719-815-85	DIODE	1S1585			
D213	8-719-815-85	DIODE	1S1585			
D214	8-719-815-85	DIODE	1S1585			
D223	8-719-815-85	DIODE	1S1585			
D224	8-719-815-85	DIODE	1S1585			
D225	8-719-815-85	DIODE	1S1585			
D231	8-719-815-85	DIODE	1S1585			
D232	8-719-815-85	DIODE	1S1585			
D233	8-719-815-85	DIODE	1S1585			
D234	8-719-815-85	DIODE	1S1585			
D235	8-719-815-85	DIODE	1S1585			
D236	8-719-815-85	DIODE	1S1585			

Ref. No.	Part No.	Description				Remark
		< FLUORESCENT INDICATOR >				
FL201	1-517-141-11	INDICATOR TUBE, FLUORESCENT				
		< IC >				
IC201	8-759-347-90	IC	uPD78044GF-126-3B9			
IC202	8-759-962-08	IC	BA6208			
IC203	8-749-923-11	IC	GP1U58XB			
		< TRANSISTOR >				
Q201	8-729-900-63	TRANSISTOR	DTA124ES			
Q202	8-729-900-36	TRANSISTOR	DTC124ES			
Q203	8-729-900-36	TRANSISTOR	DTC124ES			
Q204	8-729-900-36	TRANSISTOR	DTC124ES			
Q205	8-729-900-36	TRANSISTOR	DTC124ES			
		< RESISTOR >				
R200	1-249-433-11	CARBON	22K	5%	1/4W	
R201	1-249-427-11	CARBON	6.8K	5%	1/4W	
R202	1-249-413-11	CARBON	470	5%	1/4W	
R203	1-249-415-11	CARBON	680	5%	1/4W	
R204	1-249-417-11	CARBON	1K	5%	1/4W	
R205	1-249-419-11	CARBON	1.5K	5%	1/4W	
R206	1-249-421-11	CARBON	2.2K	5%	1/4W	
R207	1-249-423-11	CARBON	3.3K	5%	1/4W	
R208	1-249-427-11	CARBON	6.8K	5%	1/4W	
R209	1-249-431-11	CARBON	15K	5%	1/4W	
R211	1-247-903-00	CARBON	1M	5%	1/4W	
R212	1-249-429-11	CARBON	10K	5%	1/4W	
R213	1-249-441-11	CARBON	100K	5%	1/4W	
R214	1-249-425-11	CARBON	4.7K	5%	1/4W	
R215	1-249-441-11	CARBON	100K	5%	1/4W	
R216	1-249-441-11	CARBON	100K	5%	1/4W	
R217	1-249-429-11	CARBON	10K	5%	1/4W	
R218	1-249-433-11	CARBON	22K	5%	1/4W	
R221	1-247-807-31	CARBON	100	5%	1/4W	
R222	1-247-807-31	CARBON	100	5%	1/4W	
R223	1-247-807-31	CARBON	100	5%	1/4W	
R224	1-247-807-31	CARBON	100	5%	1/4W	
R225	1-247-807-31	CARBON	100	5%	1/4W	
R227	1-249-412-11	CARBON	390	5%	1/4W	
R228	1-249-412-11	CARBON	390	5%	1/4W	
R229	1-249-410-11	CARBON	270	5%	1/4W	

Ref. No.	Part No.	Description			Remark
C760	1-162-815-11	CERAMIC	47PF	5%	500V
C761	1-164-159-11	CERAMIC	0.1uF		50V
C762	1-137-372-11	FILM	0.022uF	5%	50V
C801	1-104-664-11	ELECT	47uF	20%	25V
C802	1-104-664-11	ELECT	47uF	20%	25V
C803	1-128-506-11	ELECT	6800uF	20%	50V
C804	1-128-506-11	ELECT	6800uF	20%	50V
C805	1-130-781-00	FILM	0.22uF	10%	100V
C806	1-130-781-00	FILM	0.22uF	10%	100V
C807	1-104-664-11	ELECT	47uF	20%	25V
C808	1-104-664-11	ELECT	47uF	20%	25V
C809	1-124-903-11	ELECT	1uF	20%	50V
C810	1-124-903-11	ELECT	1uF	20%	50V
C820	1-161-494-00	CERAMIC	0.022uF		25V
C821	1-161-494-00	CERAMIC	0.022uF		25V
C950	1-126-952-11	ELECT	1000uF	20%	16V
C951	1-164-097-11	CERAMIC	0.022uF		50V
C952	1-124-903-11	ELECT	1uF	20%	50V
C953	1-124-464-11	ELECT	0.22uF	20%	50V
C954	1-126-964-11	ELECT	10uF	20%	50V
C955	1-164-159-11	CERAMIC	0.1uF		50V
		< CAPACITOR >			
CC01	1-162-282-31	CERAMIC	100PF	10%	50V
CC02	1-162-282-31	CERAMIC	100PF	10%	50V
CC03	1-162-282-31	CERAMIC	100PF	10%	50V
CC04	1-162-282-31	CERAMIC	100PF	10%	50V
CC05	1-162-282-31	CERAMIC	100PF	10%	50V
CC06	1-162-282-31	CERAMIC	100PF	10%	50V
CC07	1-162-282-31	CERAMIC	100PF	10%	50V
CC12	1-164-096-11	CERAMIC	0.01uF		50V
CC13	1-164-096-11	CERAMIC	0.01uF		50V
CC20	1-164-159-11	CERAMIC	0.1uF		50V
CC21	1-164-159-11	CERAMIC	0.1uF		50V
CC51	1-162-282-31	CERAMIC	100PF	10%	50V
CC52	1-162-282-31	CERAMIC	100PF	10%	50V
CC53	1-162-282-31	CERAMIC	100PF	10%	50V
CC54	1-162-282-31	CERAMIC	100PF	10%	50V
CC55	1-162-282-31	CERAMIC	100PF	10%	50V
CC56	1-162-282-31	CERAMIC	100PF	10%	50V
CC57	1-162-282-31	CERAMIC	100PF	10%	50V
CC62	1-164-096-11	CERAMIC	0.01uF		50V
CC63	1-164-096-11	CERAMIC	0.01uF		50V
		< CONNECTOR >			
CNP404	1-750-384-11	CONNECTOR, BOARD TO BOARD 11P			
CNP702	1-770-481-11	PIN, CONNECTOR 4P			
CNP706	1-764-477-11	PIN, CONNECTOR (PC BOARD) 8P			
CNS204	1-764-928-11	CONNECTOR, FFC(LIF(NON-ZIF))23P			

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D701	8-719-933-41	DIODE HZS6C3L	
D702	8-719-815-85	DIODE 1S1585	
D703	8-719-815-85	DIODE 1S1585	
D704	8-719-815-85	DIODE 1S1585	
D706	8-719-815-85	DIODE 1S1585	
D707	8-719-815-85	DIODE 1S1585	
D708	8-719-815-85	DIODE 1S1585	
D710	8-719-815-85	DIODE 1S1585	
D751	8-719-933-41	DIODE HZS6C3L	
D752	8-719-815-85	DIODE 1S1585	
D753	8-719-815-85	DIODE 1S1585	
D801	8-719-002-33	DIODE UZL-24L	
D802	8-719-302-38	DIODE RBV-602-01	
D804	8-719-010-38	DIODE UZ-5.1BSB	
D810	8-719-200-82	DIODE 11ES2	
D811	8-719-200-82	DIODE 11ES2	
D812	8-719-200-82	DIODE 11ES2	
D813	8-719-200-82	DIODE 11ES2	
D814	8-719-815-85	DIODE 1S1585	
D815	8-719-815-85	DIODE 1S1585	
		< IC >	
IC302	8-759-636-74	IC M5218AP-22	
IC401	8-759-805-14	IC LC7822	
IC402	8-759-636-74	IC M5218AP-22	
IC801	8-759-287-58	IC TA78M12P	
IC802	8-759-700-69	IC NJM79L12A	
IC950	8-759-333-83	IC NJM2103D	
		< JACK >	
J401	1-695-188-21	JACK, PIN 4P (PHONO, CD)	
J402	1-580-825-11	JACK, PIN 6P (TAPE/MD, TV/LD)	
J403	1-695-188-21	JACK, PIN 4P (VIDEO)	
		< COIL >	
L401	1-410-509-11	INDUCTOR 10uH	
L701	1-420-872-00	COIL, AIR-CORE	
L751	1-420-872-00	COIL, AIR-CORE	
		< TRANSISTOR >	
Q305	8-729-922-37	TRANSISTOR 2SD2144S	
Q306	8-729-922-37	TRANSISTOR 2SD2144S	
Q701	8-729-620-18	TRANSISTOR 2SA979-FG	
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q703	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q704	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q705	8-729-122-13	TRANSISTOR 2SA1221-K	
Q706	8-729-195-82	TRANSISTOR 2SC2958	
Q707	8-729-141-30	TRANSISTOR 2SC3623A-LK	

DISPLAY MAIN

Ref. No.	Part No.	Description				Remark
R231	1-249-433-11	CARBON	22K	5%	1/4W	
R232	1-249-433-11	CARBON	22K	5%	1/4W	
R233	1-249-433-11	CARBON	22K	5%	1/4W	
R234	1-249-433-11	CARBON	22K	5%	1/4W	
R235	1-249-433-11	CARBON	22K	5%	1/4W	
R236	1-249-433-11	CARBON	22K	5%	1/4W	
		< SWITCH >				
S201	1-554-303-21	SWITCH, TACTILE (+)				
S202	1-554-303-21	SWITCH, TACTILE (-)				
S203	1-554-303-21	SWITCH, TACTILE (BAND)				
S204	1-554-303-21	SWITCH, TACTILE (MEMORY)				
S208	1-554-303-21	SWITCH, TACTILE (FM MODE)				
S211	1-554-303-21	SWITCH, TACTILE (1)				
S212	1-554-303-21	SWITCH, TACTILE (2)				
S213	1-554-303-21	SWITCH, TACTILE (VIDEO)				
S214	1-554-303-21	SWITCH, TACTILE (TV/LD)				
S215	1-554-303-21	SWITCH, TACTILE (TAPE/MD)				
S216	1-554-303-21	SWITCH, TACTILE (CD)				
S221	1-554-303-21	SWITCH, TACTILE (TUNER)				
S226	1-554-303-21	SWITCH, TACTILE (PHONO)				
S231	1-554-303-21	SWITCH, TACTILE (DIRECT)				
S232	1-554-303-21	SWITCH, TACTILE (10)				
S233	1-554-303-21	SWITCH, TACTILE (+)				
S234	1-554-303-21	SWITCH, TACTILE (SHIFT)				
S235	1-554-303-21	SWITCH, TACTILE (-)				
S236	1-554-303-21	SWITCH, TACTILE (9)				
S241	1-554-303-21	SWITCH, TACTILE (4)				
S242	1-554-303-21	SWITCH, TACTILE (3)				
S243	1-554-303-21	SWITCH, TACTILE (5)				
S244	1-554-303-21	SWITCH, TACTILE (6)				
S245	1-554-303-21	SWITCH, TACTILE (7)				
S246	1-554-303-21	SWITCH, TACTILE (8)				
		< VIBRATOR >				
X201	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)				

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Ref. No.	Part No.	Description				Remark
*	A-4377-520-A	MAIN BOARD, COMPLETE ********************				
*	1-537-770-11	TERMINAL BOARD, GROUND				
	3-905-609-01	SCREW (TRANSISTOR)				
	4-812-134-00	RIVET (DIA. 3.5), NYLON				
	7-682-548-09	SCREW +BVTT 3X8 (S)				
		< CAPACITOR >				
C353	1-164-159-11	CERAMIC	0.1uF		50V	
C354	1-164-159-11	CERAMIC	0.1uF		50V	
C401	1-162-286-21	CERAMIC	220PF	10%	50V	
C402	1-126-111-11	ELECT	3.3uF	20%	50V	
C403	1-126-966-11	ELECT	33uF	20%	16V	
C404	1-162-286-21	CERAMIC	220PF	10%	50V	
C405	1-137-459-11	FILM	0.0056uF	5%	100V	
C406	1-164-159-11	CERAMIC	0.1uF		50V	
C407	1-137-365-11	FILM	0.0015uF	5%	50V	
C408	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C409	1-126-111-11	ELECT	3.3uF	20%	50V	
C410	1-164-159-11	CERAMIC	0.1uF		50V	
C412	1-162-291-31	CERAMIC	560PF	10%	50V	
C413	1-164-159-11	CERAMIC	0.1uF		50V	
C414	1-161-494-00	CERAMIC	0.022uF		25V	
C415	1-164-159-11	CERAMIC	0.1uF		50V	
C416	1-164-159-11	CERAMIC	0.1uF		50V	
C421	1-126-964-11	ELECT	10uF	20%	50V	
C422	1-124-903-11	ELECT	1uF	20%	50V	
C434	1-162-286-21	CERAMIC	220PF	10%	50V	
C435	1-162-286-21	CERAMIC	220PF	10%	50V	
C451	1-162-286-21	CERAMIC	220PF	10%	50V	
C452	1-126-111-11	ELECT	3.3uF	20%	50V	
C453	1-126-966-11	ELECT	33uF	20%	16V	
C454	1-162-286-21	CERAMIC	220PF	10%	50V	
C455	1-137-459-11	FILM	0.0056uF	5%	100V	
C457	1-137-365-11	FILM	0.0015uF	5%	50V	
C459	1-126-111-11	ELECT	3.3uF	20%	50V	
C460	1-164-159-11	CERAMIC	0.1uF		50V	
C471	1-126-964-11	ELECT	10uF	20%	50V	
C472	1-124-903-11	ELECT	1uF	20%	50V	
C701	1-124-927-11	ELECT	4.7uF	20%	100V	
C702	1-164-077-11	CERAMIC	220PF	10%	50V	
C703	1-162-215-31	CERAMIC	47PF	5%	50V	
C704	1-126-923-11	ELECT	220uF	20%	10V	
C705	1-164-084-11	CERAMIC	820PF	10%	50V	
C706	1-126-967-11	ELECT	47uF	20%	16V	
C707	1-164-039-11	CERAMIC	3PF	0.25PF	50V	
C708	1-126-967-11	ELECT	47uF	20%	16V	
C710	1-162-815-11	CERAMIC	47PF	5%	500V	
C711	1-164-159-11	CERAMIC	0.1uF		50V	
C712	1-137-372-11	FILM	0.022uF	5%	50V	
C720	1-126-935-11	ELECT	470uF	20%	6.3V	
C721	1-128-581-11	ELECT	4.7uF	20%	100V	
C722	1-128-581-11	ELECT	4.7uF	20%	100V	
C723	1-124-463-00	ELECT	0.1uF	20%	50V	
C751	1-124-927-11	ELECT	4.7uF	20%	100V	
C752	1-164-077-11	CERAMIC	220PF	10%	50V	
C753	1-162-215-31	CERAMIC	47PF	5%	50V	
C754	1-126-923-11	ELECT	220uF	20%	10V	
C755	1-164-084-11	CERAMIC	820PF	10%	50V	
C756	1-126-967-11	ELECT	47uF	20%	16V	
C757	1-164-039-11	CERAMIC	3PF	0.25PF	50V	
C758	1-126-967-11	ELECT	47uF	20%	16V	

MAIN

Ref. No.	Part No.	Description				Remark
Q708	8-729-020-72	TRANSISTOR	2SD2438-OPY			
Q709	8-729-020-41	TRANSISTOR	2SB1587-OPY			
Q710	8-729-140-82	TRANSISTOR	2SA988-PAFAEA			
Q711	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q712	8-729-140-82	TRANSISTOR	2SA988-PAFAEA			
Q713	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA			
Q714	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q715	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q751	8-729-620-18	TRANSISTOR	2SA979-FG			
Q752	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q753	8-729-140-82	TRANSISTOR	2SA988-PAFAEA			
Q754	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q755	8-729-122-13	TRANSISTOR	2SA1221-K			
Q756	8-729-195-82	TRANSISTOR	2SC2958			
Q757	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q758	8-729-020-72	TRANSISTOR	2SD2438-OPY			
Q759	8-729-020-41	TRANSISTOR	2SB1587-OPY			
Q760	8-729-140-82	TRANSISTOR	2SA988-PAFAEA			
Q765	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q801	8-729-140-97	TRANSISTOR	2SB734-34			
Q951	8-729-030-18	TRANSISTOR	2SD2525			
		< RESISTOR >				
R304	1-249-441-11	CARBON	100K	5%	1/4W	
R354	1-249-425-11	CARBON	4.7K	5%	1/4W	
R355	1-249-425-11	CARBON	4.7K	5%	1/4W	
R365	1-249-417-11	CARBON	1K	5%	1/4W	
R366	1-249-417-11	CARBON	1K	5%	1/4W	
R401	1-249-411-11	CARBON	330	5%	1/4W	
R402	1-249-425-11	CARBON	4.7K	5%	1/4W	
R403	1-249-417-11	CARBON	1K	5%	1/4W	
R404	1-249-417-11	CARBON	1K	5%	1/4W	
R405	1-249-417-11	CARBON	1K	5%	1/4W	
R406	1-249-417-11	CARBON	1K	5%	1/4W	
R407	1-249-417-11	CARBON	1K	5%	1/4W	
R408	1-249-429-11	CARBON	10K	5%	1/4W	
R409	1-249-437-11	CARBON	47K	5%	1/4W	
R410	1-247-897-11	CARBON	560K	5%	1/4W	
R411	1-249-416-11	CARBON	820	5%	1/4W	
R412	1-247-897-11	CARBON	560K	5%	1/4W	
R413	1-249-437-11	CARBON	47K	5%	1/4W	
R414	1-249-425-11	CARBON	4.7K	5%	1/4W	
R416	1-249-417-11	CARBON	1K	5%	1/4W	
R417	1-247-897-11	CARBON	560K	5%	1/4W	
R420	1-247-887-00	CARBON	220K	5%	1/4W	
R421	1-249-417-11	CARBON	1K	5%	1/4W	
R435	1-249-418-11	CARBON	1.2K	5%	1/4W	
R442	1-249-418-11	CARBON	1.2K	5%	1/4W	
R443	1-249-418-11	CARBON	1.2K	5%	1/4W	
R447	1-249-416-11	CARBON	820	5%	1/4W	
R448	1-249-429-11	CARBON	10K	5%	1/4W	
R449	1-249-433-11	CARBON	22K	5%	1/4W	
R451	1-249-411-11	CARBON	330	5%	1/4W	
R452	1-249-425-11	CARBON	4.7K	5%	1/4W	
R453	1-249-417-11	CARBON	1K	5%	1/4W	
R454	1-249-417-11	CARBON	1K	5%	1/4W	
R455	1-249-417-11	CARBON	1K	5%	1/4W	
R456	1-249-417-11	CARBON	1K	5%	1/4W	
R457	1-249-417-11	CARBON	1K	5%	1/4W	
R458	1-249-429-11	CARBON	10K	5%	1/4W	
R459	1-249-437-11	CARBON	47K	5%	1/4W	
R460	1-247-897-11	CARBON	560K	5%	1/4W	
R461	1-249-416-11	CARBON	820	5%	1/4W	
R462	1-247-897-11	CARBON	560K	5%	1/4W	
R463	1-249-437-11	CARBON	47K	5%	1/4W	
R466	1-249-417-11	CARBON	1K	5%	1/4W	
R467	1-247-897-11	CARBON	560K	5%	1/4W	
R470	1-247-887-00	CARBON	220K	5%	1/4W	
R471	1-249-417-11	CARBON	1K	5%	1/4W	
R701	1-249-421-11	CARBON	2.2K	5%	1/4W	
R702	1-249-435-11	CARBON	33K	5%	1/4W	
R703	1-249-415-11	CARBON	680	5%	1/4W	
R704	1-249-434-11	CARBON	27K	5%	1/4W	
R705	1-249-415-11	CARBON	680	5%	1/4W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R707	1-249-421-11	CARBON	2.2K	5%	1/4W	
R708	1-249-433-11	CARBON	22K	5%	1/4W	
R709	1-249-409-11	CARBON	220	5%	1/4W	
R710	1-249-435-11	CARBON	33K	5%	1/4W	
R711	1-249-414-11	CARBON	560	5%	1/4W	
R712	1-249-422-11	CARBON	2.7K	5%	1/4W	
R713	1-249-397-11	CARBON	22	5%	1/4W	
R715	1-249-414-11	CARBON	560	5%	1/4W	
R716	1-249-397-11	CARBON	22	5%	1/4W	
R717	1-249-421-11	CARBON	2.2K	5%	1/4W	
R718	1-249-393-11	CARBON	10	5%	1/4W	
R719	1-249-393-11	CARBON	10	5%	1/4W	
⚠R720	1-233-352-21	ENCAPSULATED COMPONENT				F
R721	1-249-437-11	CARBON	47K	5%	1/4W	
R722	1-249-425-11	CARBON	4.7K	5%	1/4W	
R723	1-249-431-11	CARBON	15K	5%	1/4W	
R724	1-249-393-11	CARBON	10	5%	1/4W	
R725	1-249-389-11	CARBON	4.7	5%	1/4W	
R727	1-249-437-11	CARBON	47K	5%	1/4W	
R729	1-249-887-11	CARBON	33	5%	1/4W	
R730	1-249-887-11	CARBON	33	5%	1/4W	
R731	1-249-429-11	CARBON	10K	5%	1/4W	
R732	1-249-417-11	CARBON	1K	5%	1/4W	
R733	1-249-435-11	CARBON	33K	5%	1/4W	
R734	1-249-427-11	CARBON	6.8K	5%	1/4W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description				Remark
R737	1-249-429-11	CARBON	10K	5%	1/4W	
R738	1-249-424-11	CARBON	3.9K	5%	1/4W	
R751	1-249-421-11	CARBON	2.2K	5%	1/4W	
R752	1-249-435-11	CARBON	33K	5%	1/4W	
R753	1-249-415-11	CARBON	680	5%	1/4W	
R754	1-249-434-11	CARBON	27K	5%	1/4W	
R755	1-249-415-11	CARBON	680	5%	1/4W	
R756	1-249-409-11	CARBON	220	5%	1/4W	
R757	1-249-421-11	CARBON	2.2K	5%	1/4W	
R758	1-249-433-11	CARBON	22K	5%	1/4W	
R759	1-249-409-11	CARBON	220	5%	1/4W	
R760	1-249-435-11	CARBON	33K	5%	1/4W	
R761	1-249-414-11	CARBON	560	5%	1/4W	
R762	1-249-422-11	CARBON	2.7K	5%	1/4W	
R763	1-249-397-11	CARBON	22	5%	1/4W	
R765	1-249-414-11	CARBON	560	5%	1/4W	
R766	1-249-397-11	CARBON	22	5%	1/4W	
R767	1-249-421-11	CARBON	2.2K	5%	1/4W	
R768	1-249-393-11	CARBON	10	5%	1/4W	
R769	1-249-393-11	CARBON	10	5%	1/4W	
⚠R770	1-233-352-21	ENCAPSULATED COMPONENT				F
R771	1-249-437-11	CARBON	47K	5%	1/4W	
R772	1-249-425-11	CARBON	4.7K	5%	1/4W	
R773	1-249-431-11	CARBON	15K	5%	1/4W	
R774	1-249-393-11	CARBON	10	5%	1/4W	
R775	1-249-389-11	CARBON	4.7	5%	1/4W	
R777	1-249-438-11	CARBON	56K	5%	1/4W	
R788	1-249-424-11	CARBON	3.9K	5%	1/4W	
R801	1-249-423-11	CARBON	3.3K	5%	1/4W	F
⚠R802	1-249-887-11	CARBON	33	1%	1/4W	
⚠R805	1-249-455-11	METAL OXIDE	4.7	5%	1/4W	F
R808	1-247-752-11	CARBON	1K	5%	1/2W	
R850	1-249-412-11	CARBON	390	5%	1/4W	
R851	1-249-412-11	CARBON	390	5%	1/4W	
R950	1-249-421-11	CARBON	2.2K	5%	1/4W	
R951	1-249-429-11	CARBON	10K	5%	1/4W	
R952	1-249-423-11	CARBON	3.3K	5%	1/4W	
R953	1-249-433-11	CARBON	22K	5%	1/4W	
R954	1-249-439-11	CARBON	68K	5%	1/4W	
R955	1-249-429-11	CARBON	10K	5%	1/4W	
R956	1-249-423-11	CARBON	3.3K	5%	1/4W	
R957	1-249-417-11	CARBON	1K	5%	1/4W	
R960	1-249-429-11	CARBON	10K	5%	1/4W	
		< RESISTOR >				
RR01	1-249-418-11	CARBON	1.2K	5%	1/4W	
RR04	1-249-393-11	CARBON	10	5%	1/4W	
RR05	1-249-393-11	CARBON	10	5%	1/4W	
RR51	1-249-418-11	CARBON	1.2K	5%	1/4W	
RR54	1-249-393-11	CARBON	10	5%	1/4W	
RR55	1-249-393-11	CARBON	10	5%	1/4W	
		< RELAY >				
RY701	1-515-920-11	RELAY (24V)				
		< TERMINAL >				
TM001	1-537-714-11	TERMINAL BOARD (ANTENNA)				
TM701	1-537-376-11	TERMINAL BOARD (SP)(SPEAKERS)				
		< TUNER >				
TU001	1-233-308-11	ENCAPSULATED COMPONENT				

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Ref. No.	Part No.	Description				Remark
*	1-656-007-11	PRIMARY BOARD *************				

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Ref. No.	Part No.	Description				Remark
*	1-656-000-11	SP SW BOARD ***********				
		< JACK >				
J741	1-750-733-11	JACK (LARGE TYPE)(PHONES)				
		< RESISTOR >				
R741	1-260-100-11	CARBON	1.2K	5%	1/2W	
R742	1-260-100-11	CARBON	1.2K	5%	1/2W	
R791	1-260-100-11	CARBON	1.2K	5%	1/2W	
R792	1-260-100-11	CARBON	1.2K	5%	1/2W	
		< SWITCH >				
S701	1-762-320-11	SWITCH, PUSH (2 KEY)(SPEAKERS)				

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Ref. No.	Part No.	Description				Remark
*	1-656-004-11	SP SW A BOARD *************				

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Ref. No.	Part No.	Description				Remark
*	1-656-005-11	SP SW B BOARD *************				
		< CONNECTOR >				
CNS702	1-770-482-11	CONNECTOR, BOARD TO BOARD 4P				

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The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

STANDBY | TONE | TRANSFORMER | VOL MAIN | VOLUME

Ref. No.	Part No.	Description				Remark
*	1-656-002-11	STANDBY BOARD *************				
	1-533-293-11	FUSE HOLDER				
	1-537-770-11	TERMINAL BOARD, GROUND				
		< CONNECTOR >				
CNP901	1-564-321-00	PIN, CONNECTOR 2P				
		< FUSE >				
⚠F902	1-532-285-00	FUSE, TIME LAG (1.25A 250V)				
***						
*	1-655-999-11	TONE BOARD **********				
		< CAPACITOR >				
C421	1-137-440-11	FILM	0.018uF	5%	50V	
C422	1-124-463-00	ELECT	0.1uF	20%	50V	
C423	1-137-368-11	FILM	0.0047uF	5%	50V	
C424	1-137-372-11	FILM	0.022uF	5%	50V	
C471	1-137-440-11	FILM	0.018uF	5%	50V	
C472	1-124-463-00	ELECT	0.1uF	20%	50V	
C473	1-137-368-11	FILM	0.0047uF	5%	50V	
C474	1-137-372-11	FILM	0.022uF	5%	50V	
		< CONNECTOR >				
* CNP203	1-569-799-11	PLUG, CONNECTOR 5P				
CNS401	1-770-399-11	HOUSING, CONNECTOR(PC BOARD)6P				
		< DIODE >				
D207	8-719-313-72	LED	SEL3810A-CD			
D208	8-719-313-72	LED	SEL3810A-CD			
		< RESISTOR >				
R210	1-249-435-11	CARBON	33K	5%	1/4W	
R421	1-249-430-11	CARBON	12K	5%	1/4W	
R422	1-249-422-11	CARBON	2.7K	5%	1/4W	
R429	1-249-415-11	CARBON	680	5%	1/4W	
R437	1-247-903-00	CARBON	1M	5%	1/4W	
R440	1-247-903-00	CARBON	1M	5%	1/4W	
R471	1-249-430-11	CARBON	12K	5%	1/4W	
R472	1-249-422-11	CARBON	2.7K	5%	1/4W	
R479	1-249-415-11	CARBON	680	5%	1/4W	
R487	1-247-903-00	CARBON	1M	5%	1/4W	
R490	1-247-903-00	CARBON	1M	5%	1/4W	
		< VARIABLE RESISTOR >				
RV421	1-223-362-11	RES, VAR, CARBON 100K/100K (BASS)				
RV422	1-223-363-11	RES, VAR, CARBON 125K/125K (TREBLE)				
RV423	1-223-880-11	RES, VAR, CARBON 100K/100K (BALANCE)				
		< SWITCH >				
S209	1-554-303-21	SWITCH, TACTILE (MUTING -20dB)				
S210	1-554-303-21	SWITCH, TACTILE (BASS BOOST)				
***						
*	1-655-998-11	TRANSFORMER BOARD *****************				
	1-533-293-11	FUSE HOLDER				
		< CONNECTOR >				
CNP801	1-764-477-11	PIN, CONNECTOR (PC BOARD) 8P				
		< FUSE >				
⚠F802	1-532-215-00	FUSE, TIME LAG (0.8A 250V)				
***						
*	1-655-997-11	VOL MAIN BOARD **************				
		< CONNECTOR >				
CNS403	1-770-381-11	CONNECTOR, BOARD TO BOARD 10P				
CNS404	1-750-383-21	CONNECTOR, BOARD TO BOARD 11P				
***						
*	A-4377-522-A	VOLUME BOARD, COMPLETE **********************				
		< CAPACITOR >				
C420	1-162-207-31	CERAMIC	22PF	5%	50V	
C425	1-126-096-11	ELECT	10uF	20%	35V	
C426	1-126-096-11	ELECT	10uF	20%	35V	
C427	1-124-252-00	ELECT	0.33uF	20%	50V	
C428	1-130-489-00	MYLAR	0.033uF	5%	50V	
C429	1-164-070-11	CERAMIC	100PF	5%	50V	
C430	1-126-301-11	ELECT	1uF	20%	50V	
C431	1-126-301-11	ELECT	1uF	20%	50V	
C432	1-126-096-11	ELECT	10uF	20%	35V	
C433	1-126-096-11	ELECT	10uF	20%	35V	
C470	1-162-207-31	CERAMIC	22PF	5%	50V	
C475	1-126-096-11	ELECT	10uF	20%	35V	
C476	1-126-096-11	ELECT	10uF	20%	35V	
C477	1-124-252-00	ELECT	0.33uF	20%	50V	
C478	1-130-489-00	MYLAR	0.033uF	5%	50V	
C479	1-164-070-11	CERAMIC	100PF	5%	50V	
C492	1-124-464-11	ELECT	0.22uF	20%	50V	

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Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
CNP202	1-770-391-11	PIN, CONNECTOR (PC BOARD) 7P	
CNP401	1-770-390-11	PIN, CONNECTOR (PC BOARD) 6P	
CNP403	1-770-406-11	CONNECTOR, BOARD TO BOARD 10P	
		< DIODE >	
D421	8-719-815-85	DIODE 1S1585	
		< IC >	
IC404	8-759-636-74	IC M5218AP-22	
		< TRANSISTOR >	
Q401	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q402	8-729-922-37	TRANSISTOR 2SD2144S	
Q403	8-729-922-37	TRANSISTOR 2SD2144S	
Q451	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q452	8-729-922-37	TRANSISTOR 2SD2144S	
Q453	8-729-922-37	TRANSISTOR 2SD2144S	
		< RESISTOR >	
R425	1-249-428-11	CARBON 8.2K 5% 1/4W	
R426	1-249-438-11	CARBON 56K 5% 1/4W	
R427	1-249-417-11	CARBON 1K 5% 1/4W	
R428	1-249-425-11	CARBON 4.7K 5% 1/4W	
R430	1-249-437-11	CARBON 47K 5% 1/4W	
R431	1-249-423-11	CARBON 3.3K 5% 1/4W	
R432	1-247-883-00	CARBON 150K 5% 1/4W	
R433	1-249-427-11	CARBON 6.8K 5% 1/4W	
R434	1-249-412-11	CARBON 390 5% 1/4W	
R436	1-249-441-11	CARBON 100K 5% 1/4W	
R438	1-249-441-11	CARBON 100K 5% 1/4W	
R441	1-249-441-11	CARBON 100K 5% 1/4W	
R444	1-247-903-00	CARBON 1M 5% 1/4W	
R446	1-247-807-31	CARBON 100 5% 1/4W	
R464	1-247-903-00	CARBON 1M 5% 1/4W	
R469	1-247-903-00	CARBON 1M 5% 1/4W	
R475	1-249-428-11	CARBON 8.2K 5% 1/4W	
R476	1-249-438-11	CARBON 56K 5% 1/4W	
R477	1-249-417-11	CARBON 1K 5% 1/4W	
R478	1-249-425-11	CARBON 4.7K 5% 1/4W	
R480	1-249-437-11	CARBON 47K 5% 1/4W	
R481	1-249-423-11	CARBON 3.3K 5% 1/4W	
R482	1-247-883-00	CARBON 150K 5% 1/4W	
R483	1-249-427-11	CARBON 6.8K 5% 1/4W	
R484	1-249-412-11	CARBON 390 5% 1/4W	
R491	1-249-441-11	CARBON 100K 5% 1/4W	
R492	1-247-903-00	CARBON 1M 5% 1/4W	
R494	1-247-903-00	CARBON 1M 5% 1/4W	
R496	1-247-807-31	CARBON 100 5% 1/4W	

Ref. No.	Part No.	Description	Remark
		< VARIABLE RESISTOR >	
RV404	1-223-882-11	RES, VAR 100K/100K (VOLUME)	

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MISCELLANEOUS

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Ref. No.	Part No.	Description	Remark
6	1-773-744-11	WIRE (FLAT TYPE) (23 CORE)	
⚠60	1-769-744-11	CORD, POWER	
* 106	1-537-770-11	TERMINAL BOARD, GROUND	
⚠F802	1-532-215-00	FUSE, TIME LAG (0.8A 250V)	
⚠F902	1-532-285-00	FUSE, TIME LAG (1.25A 250V)	
FL201	1-517-141-11	INDICATOR TUBE, FLUORESCENT	
Q708	8-729-020-72	TRANSISTOR 2SD2438-OPY	
Q709	8-729-020-41	TRANSISTOR 2SB1587-OPY	
Q758	8-729-020-72	TRANSISTOR 2SD2438-OPY	
Q759	8-729-020-41	TRANSISTOR 2SB1587-OPY	
RV404	1-223-882-11	RES, VAR 100K/100K (VOLUME)	
⚠T901	1-427-882-11	TRANSFORMER, POWER	

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ACCESSORIES & PACKING MATERIALS

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Ref. No.	Part No.	Description	Remark
	1-473-073-11	COMMANDER, STANDARD (RM-U254)	
	1-501-374-11	ANTENNA, LOOP	
	1-501-594-11	ANTENNA (FM)	
	3-798-811-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, DUTCH) (AEP)	
	3-798-811-41	MANUAL, INSTRUCTION (SPANISH, SWEDISH, DANISH, FINNISH) (AEP)	
	3-798-811-51	MANUAL, INSTRUCTION (GERMAN) (G)	
	4-941-762-01	COVER (MLY), BATTERY (for RM-U254)	
*	4-974-625-01	CUSHION	
*	4-974-627-01	INDIVIDUAL CARTON	

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HARDWARE LIST

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Ref. No.	Part No.	Description	Remark
#1	7-682-548-04	SCREW +BVTT 3X8 (S)	
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#4	7-621-849-00	SCREW, TAPPING	
#5	7-682-560-04	SCREW +BVTT 4X6 (S)	

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